# McGill University

# ANNUAL CALENDAR

FOR SESSION 1906-1907

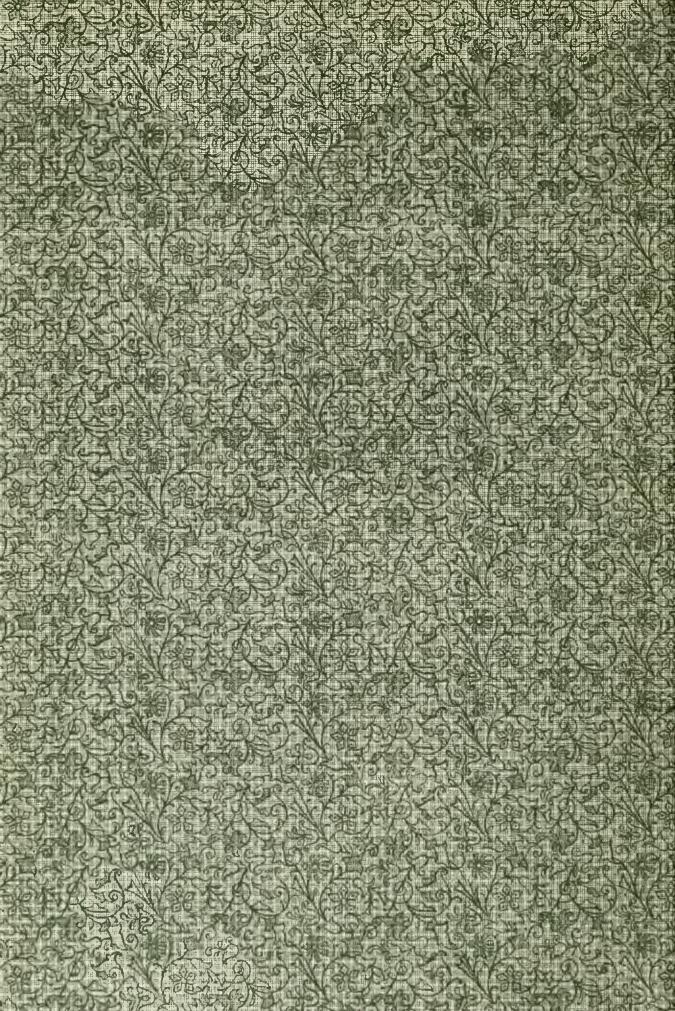
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FOR SESSION 1905-1906

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1906







### ANNUAL CALENDAR

OF

# McGILL COLLEGE

AND

## UNIVERSITY

MONTREAL.



FOUNDED UNDER BEQUEST OF THE HON. JAMES McGILL ERECTED INTO A UNIVERSITY BY ROYAL CHARTER IN 1821, AND RE-ORGANIZED BY AN AMENDED CHARTER IN 1852.

## SESSION 1906-1907

## Montreal:

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The List of Graduates, corrected to July, 1906, is published separately. Copies can be obtained on application to the Registrar.

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Demonstrator in Anatomy. H. R. D. GRAY, B.A., M.D.

454 St. Antoine Street.

Demonstrator in Obstetrics.

59 Beaver Hall Hill.

C. F. Wylde, M.D.

Demonstrator in Clinical Microscopy. 56 Mackay Street.

DAVID PATRICK, M.D.

Demonstrator in Gynaecology. 4174 St. Catherine Street. C. A. Peters, M.D.

Demonstrator in Clinical Medicine. 2810 St. Catherine Street.

F. M. Fry, M.D.

Demonstrator in Clinical Medicine. 939 Dorchester Street.

A. MACKENZIE FORBES, M.D.

Assistant Demonstrator in Anatomy.

231 Stanley Street.

CHARLES K. P. HENRY, M.D.

Assistant Demonstrator in Anatomy and in Clinical

Surgery. 374 Greene Avenue.

A. R. PENNOYER, M.D.

Assistant Demonstrator in Clinical Surgery.

2624 St. Catherine Street.

W. H. Jamieson, M.D.

Assistant Demonstrator in Laryngology, Otology and Rhinology. 209 Peel Street.

A. D. IRVINE, M.D.

Assistant Demonstrator in Clinical Surgery.

J. W. Duncan, M.D.

Assistant Demonstrator of Obstetrics. 27 Bishop Street.

J. G. Browne, B.A., M.D.

Assistant Demonstrator in Anatomy and Obstetrics.

1171 St. Denis Street.

E M. VON EBERTS, M.D.

Assistant Demonstrator in Clinical Surgery. 107 Metcalfe Street.

W. H. P. HILL, M.D.

Assistant-Demonstrator in Clinical Surgery.

2492 St. Catherine Street.

F. T. TOOKE, B.A., M.D.

Assistant Demonstrator in Ophthalmology.

S. H. McKee, B.A., M.D.

Assistant Demonstrator in Ophthalmology.

W. E. NELSON, M.D.

Assistant Demonstrator in Anatomy.

W. H. DONNELLY, M.D.

Assistant Demonstrator in Bacteriology.

F C. Douglas, M.D., D.P.H.

Assistant Demonstrator in Hygiene.

J. A. Lundie, M.D., D.P.H.

.1ssistant Demonstrator in Hygiene.

C. K. Russell, M.D.

Assistant Demonstrator in Clinical Medicine.

A. G. McAuley, M.D.

Assistant Demonstrator in Clinical Medicine.

J. W. Duncan, M.D.

Assistant Demonstrator in Obstetrics.

O. R. MABEE,

Laboratory Assistant in Chemistry.

Medical Building, McGill College.

#### DENTAL DEPARTMENT.

PETER BROWN, L.D.S.

Professor of Operative Dentistry and Operative Tech-14 Phillips Square.

FRED. G. HENRY, D.D.S.

Professor of Dental Pathology, Dental Materia-Medica 2498 St. Catherine Street and Therapeutics.

D. JAMES BERWICK, D.D.S.

Professor of Prosthetic Dentistry, Metallurgy and Crown E. R. BARTON, D.D.S. Inglis Building, 2381 St. Catherine Street.

Lecturer on Dental Anatomy, and Human and Comparative, McGill College. and Dental Surgery.

JAMES B. MORRISON, D.D.S.

14 Phillips Square. Lecturer on Orthodontia.

A. D. ANGUS, D.D.S.

Demonstrator on Operative Technique. W. D. Sмітн, D.D.S. 14 Phillips Square.

Demonstrator on Prosthetic Dentistry and Bridge Work. Room 82 Bank of Ottawa Building, St. James Street.

## Professors Emeriti.

(Retaining their Rank and Titles, but retired from work.)

ALEX. JOHNSON, M.A., LL.D., D.C.L., F.R.S.C.

Vice-Principal Emeritus, and Emeritus Professor in the

453 Sherbrooke Street, West.

Faculty of Arts. Wm. Wright, M.D.

Emeritus Professor in the Faculty of Medicine. 84 St. Famille St.

HON. MATTHEW HUTCHINSON, D.C.L.

Emeritus Professor in the Faculty of Law. Sherbrooke, Que.

Hon. J. Emery Robidoux, D.C.L.

Emeritus Professor in the Faculty of Law. 396 St. Gilbert P. Girdwood, M.D., M.R.C.S., F.R.S.C., F.I.C. 396 St. Denis Street.

Emeritus Professor in the Faculty of Medicine. 111 University St.

J. CLARK MURRAY, LL.D., F.R.S.C.

20 McTavish Street. Emeritus Professor in the Faculty of Arts.

Duncan McEachran, D.V.S., F.R.C.V.S.

Emeritus Dean and Professor in the Faculty of Comparative Medicine and Veterinary Science 176 University Street.

#### SEPTEMBER, 1906.

1	100		1.304	15.70
I.		1 1 4	4 4 4 4	16 Y

#### SUNDAY

- Monday
- Tuesday
- Wednesday
- Thursday
- Friday
- Saturday

#### 9 SUNDAY

- 10 Monday
- 11 Tuesday
- Wednesday 12
- Thursday 13
- Friday 15 Saturday

#### 16 SUNDAY

- 17 Monday
- 18 Tuesday
- Wednesday 19
- 20 Thursday
- Friday 22 Saturday

#### 23 SUNDAY

- Monday
- 25 Tuesday
- 26 Wednesday
- Thursday
- Friday Saturday
- 30 SUNDAY

Normal School opens.

Matriculation, Exhibition, Scholarship and Supplemental Examinations. Register opens for students in Medicine.

Lectures in Law begin.

Finance Committee.

College Grounds Committee. Engineering Building Committee. Chemistry and Mining Building Committee.

Introductory Lecture in Medicine. Examination in Summer Reading, Applied Science

Lectures in all Faculties (except Law) begin. Exemption Examination in English, Faculty Applied Science. Conservatorium of Music opens. New Medical Buildings opened, 1901.

Meeting of Governors. Meeting of Faculty of Arts.

Freshman Sports and open Handicaps.

#### OCTOBER, 1906.

1 Monday

Tuesday

Wednesday Thursday 4

Friday

6 Saturday

#### SUNDAY

Monday

Tuesday

10 Wednesday

Thursday

12 Friday

Saturday 13

#### 14 SUNDAY

15 Monday

16 Tuesday

17 Wednesday

Thursday

19 Friday

20 Saturday

#### 21 SUNDAY

- Monday 92
- 23 Tuesday
- 24 Wednesday
- Thursday 26 Friday
- 27 Saturday

#### 28 SUNDAY

- 29 Monday
- 30 Tuesday
- 31 Wediesday

- Summer Essays in Applied Science to be sent in. Meeting of Faculty of Applied Science.
- Normal School Committee. Meeting of Academic Board,

Physics Building Committee.

Meeting of Faculty of Arts Founder's Birthday. Meeting of Faculty of Medicine.

University Lecture. Museum Committee. Library Committee.

Regular Meeting of Corporation. Annual Report to the Visitor. William Molson Hall opened, 1862.

Finance Committee.

Sports Day.

Conservatorium of Music opened, 1904.

Engineering Building Committee. Chemistry and Mining Building Committee. College Grounds Committee. Register in Medicine closes.

Meeting of Governors.

Meeting of Faculty of Arts.

New Library opened, 1893.

Nore -Meetings of the Faculty of Arts are held at 4 P.M. unless otherwise specified

#### xxxii

#### NOVEMBER, 1906.

- Thursday
- 2 Friday
- 3 Saturday

#### SUNDAY 4

- Monday
- Tuesday
- Wednesday
- Thursday 8
- Friday
- 10 Saturday

#### 11 SUNDAY

- 12 Monday
- Tuesday 13
- Wednesday 14
- Thursday 15
- 16 Friday
- 17 Saturday

#### 18 SUNDAY

- 19 Monday
- 20 Tuesday Wednesday 21
- Thursday 22
- Friday 23
- 24 Saturday

#### 25 SUNDAY

- 26
- Monday Tuesday 27
- 28 Wednesday 29 Thursday
- 30 Friday

Meeting of Faculty of Medicine.

Meeting of Faculty of Applied Science.

Finance Committee.

Edward VII born, 1841.

Meeting of Governors. Meeting of Faculty of Arts.

Engineering Building Committee. Chemistry and Mining Building Committee. College Grounds Committee.

#### DECEMBER, 1906.

#### 1 Saturday

#### SUNDAY 2

- Monday
- Tuesday
- Wednesday
- 6 Thursday
- Friday
- 8 Saturday

#### 9 SUNDAY

- 10 Monday
- Tuesday 11
- Wednesday 12
- 13 Thursday Friday
- 15 Saturday

#### 16 SUNDAY 17 Monday

- Tuesday
- Wednesday 19 20 Thursday
- 21 Friday
- 22 Saturday

- 23 SUNDAY 24 Monday
- Tuesday 25
- 26
- Wednesday 27 Thursday
- 28 Friday
- 29 Saturday

#### 30 SUNDAY

31 Monday

Meeting of Faculty of Medicine.

Meeting of Faculty of Applied Science.

Meeting of Academic Board. Physics Building Committee.

Meeting of Faculty of Arts.

Museum Committee. Library Committee.

Regular Meeting of Corporation.

Finance Committee

Christmas Examinations in Arts begin. Lectures end in Faculty of Medicine

Christmas Examinations in Applied Science and Medicine begin, Engineering Building Committee. Chemistry and Mining Building Committee. College Grounds Committee.

Chemistry and Mining Building opened, 1898.

Term ends in all Faculties. Meeting of Governors. Meeting of Faculty of Arts.

Christmas-Day.

1	Tu	68	day	
0	34"	ad	23 45 12	das

- Thursday
- Friday
- 5 Saturday

### Meeting of Faculty of Medicine.

Normal School Committee.

### 6 SUNDAY

- Monday
- Tuesday
- Wednesday
- 10 Thursday
- Friday 11
- 12 Saturday

### Second Term opens in all Faculties. Meeting of Faculty of Applied Science.

Finance Committee.

Meeting of Faculty of Arts.

### 13 SUNDAY

- 14 Monday
- Tuesday 15
- Wednesday
- 17 Thursday
- Friday 18
- 19 Saturday

### 20 SUNDAY

- Monday
- 22 Tuesday
- Wednesday 93
- Thursday 24
- 25 Friday
- 26 Saturday

### 27 SUNDAY

- 28 Monday
- 29 Tuesday
- Wednesday Thursday

Meeting of Governors.

Engineering Building Committee. Chemistry and Mining Building Committee. College Grounds Committee.

Queen Victoria died, 1901.

### FEBRUARY, 1907.

- Friday
- 2 Saturday

### 3 SUNDAY

- Monday Tuesday
- Wednesday
- Thursday
- Friday 8
- 9 Saturday

### 10 SUNDAY

- 11 Monday
- Tuesday 12 Wednesday 13
- Thursday 14
- 15 Friday
- 16 Saturday

### 17 SUNDAY

- 18 Monday
- Tuesday
- 20 Wednesday
- Thursday 21 22 Friday
- 23 Saturday

### 24 SUNDAY

- 25 Monday
- 26 Tuesday
- 27 Wednesday
- Thursday

Meeting of Faculty of Medicine.

Meeting of Faculty of Applied Science.

Meeting of Academic Board.

Physics Building Committee.

Meeting of Faculty of Arts.

Museum Committee. Library Committee.

No lectures. Regular Meeting of Corporation. Ash Wednesday.

Finance Committee.

Meeting of Governors.

Engineering Building Committee, Chemistry and Mining Building Committee. College Grounds Committee.

Meeting of Faculty of Arts.

Physics and Engineering Buildings opened 1893.

### MARCH, 1907. xxxiv Friday Meeting of Faculty of Medicine. 2 Saturday 3 SUNDAY Meeting of Faculty of Applied Science. Monday Tuesday 5 Wednesday Thursday Meeting of Academic Board. 6 Friday 9 Saturday 10 SUNDAY Monday 11 Tuesday 12 13 Wednesday Finance Committee. Thursday 14 Meeting of Governors. Theses for M.A. to be sent in. Friday 15 16 Saturday 17 SUNDAY Engineering Building Committee. Chemistry and Mining Building Committee. College Grounds Committee. 18 Monday 19 Tuesday Wednesday 20 Thursday 21 Meeting of Faculty of Arts. Reports of Attendance on Lectures. Winter 22 Friday Term in Medicine ends. 23 Saturday 24 SUNDAY 25 Monday Tuesday Wednesday $\frac{26}{27}$ Last day of Lectures in Arts. Law and Applied Science. Good Friday. Easter Vacation begins. 28 Thursday 29 Friday 30 Saturday 31 SUNDAY Easter Sunday.

### APRII., 1907.

1 Monday 2 Tucsday 3 Wednesday 4 Thursday 5 Friday 6 Saturday 7 SUNDAY	Meeting of Faculty of Applied Science.  Easter Vacation ends. Sessional Examinations in Applied Science begin.  Spring Term begins, Faculty of Medicine.  Normal School Committee. Physics Building Committee. Examinations in Arts begin Meeting of Faculty of Arts.  Meeting of Faculty of Medicine.
8 Monday 9 Tuesday 10 Wednesday 11 Thursday 12 Friday 13 Saturday 14 SUNDAY	Museum Committee. Library Committee.  Regular Meeting of Corporation.  Finauce Committee.
15 Monday  16 Tuesday  17 Wednesday  18 Thursday  19 Friday  20 Saturday	Engineering Building Committee. Chemistry and Mining Building Committee. College Grounds Committee.  Meeting of Governors. Meeting of Faculty of Arts.
21 SUNDAY  22 Monday 23 Tuesday 24 Wednesday 25 Thursday 26 Friday 27 Saturday 28 SUNDAY	
29 Monday 30 Tuesday	Convocation for Degrees in Arts, Law, and Applied Science.

Wednesday

Thursday Friday

Saturday

SUNDAY

Monday Tuesday

Wednesday Thursday 0

10 Friday

11 Saturday

12 SUNDAY

13 Monday Tuesday

Wednesday 15 Thursday 16 17 Friday

18 Saturday

19 SUNDAY

Monday 20

2 t Tuesday

22 Wednesday 23 Thursday

24 Friday 95 Saturday

26 SUNDAY

27 Monday Tuesday

Wednesday 20 Thursday 30

Friday

Summer Classes in Arts begin.

Meeting of Faculty of Arts. Meeting of Faculty of Medicine.

Meeting of Faculty of Applied Science,

Finance Committee.

Spring term ends, Faculty of Medicine.

Chemistry and Mining Building Committee. " College Grounds Committee.

Meeting of Governors.

Whit Sunday,

Engineering Building Committee. Chemistry and Mining Building Committee. College Grounds Committee.

Regular Meeting of Corporation. Convocation for degrees in Medicine.

Engineering Building Committee. Chemistry and Mining Building Com-

-

Trinity Sunday.

Normal School closes.

Meeting of Faculty of Medicine.

Normal School Committee.

Finance Committee.

Meeting of Governors.

Physics Building Committee.

Summer Classes in Arts end.

Graduate course in Medicine begins.

Museum Committee. Library Committee

mittee. College Grounds Committee.

### JUNE, 1907.

Saturday

SUNDAY

3 Monday Tuesday

Wednesday Thursday

Friday

Saturday

9 SUNDAY

10 Monday

11 Tuesday

12 Wednesday 13

Thursday

Friday

Saturday

16 SUNDAY

17 Monday

18 Tuesday

19 Wednesday Thursday 20

21 Friday

22 Saturday

23 SUNDAY

25 Tuesday 26

97

23 Friday

29 Saturday

Monday

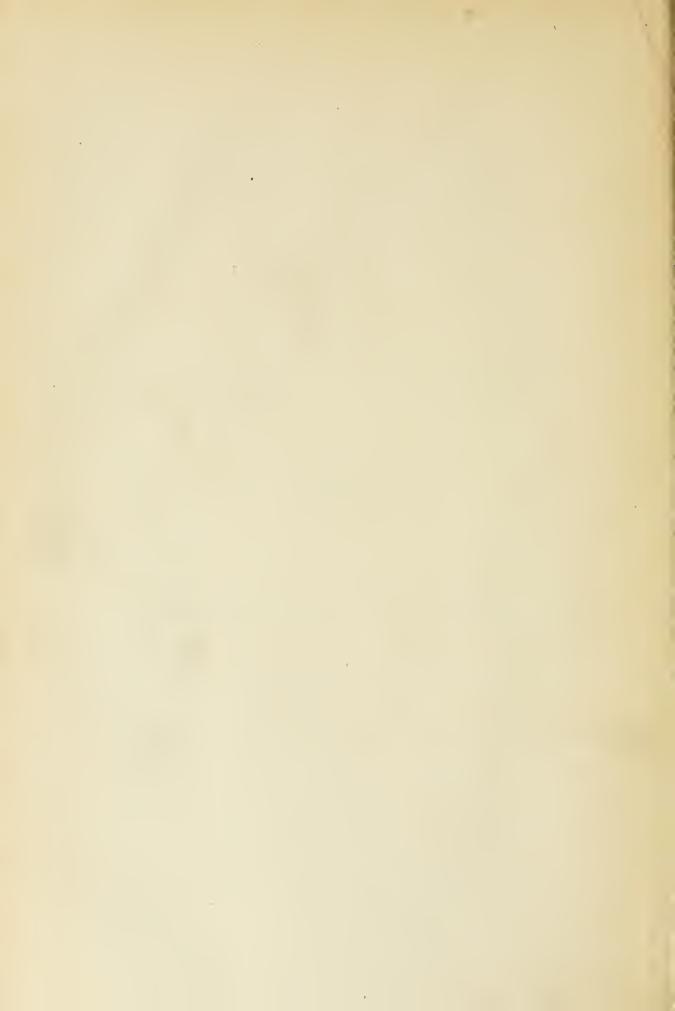
Wednesday Thursday

30 SUNDAY

# TIME TABLES

OF

LECTURES AND EXAMINATIONS.



FACULTY OF ARTS (SESSION 1906-1907).

### FIRST YEAR-MEN.

Hours	Monday.	Tuesday.	Wudnesday.	THURSDAY.	FRIDAY.	SATURDAY.
9	Math.	Math.	French.	Math.	Math.	
10	Latin.	Latin.	Latin.	Latin.	History.	
11	French.	French.	German.	German.	French.	
12	German.	English.	English.	English.	Greek.	
2		Physics.		Physics.		
3	Greek.	German.	Greek.	Greck.		
4		Beginners' German.	Beginners' German.	Beginners' G rman.	Beginners' German,	
5						

## FIRST YEAR-WOMEN.

	Hours.	MONDAY.	Tuesday.	V/EDNESDAY.	Thursday.	FRIDAY.	SATURDAY,
	9	Math.	_	History.	Math.	French.	
-	10	French.	German.	Greck.	German.	Greek.	
	11	Latin.	Math.	Math.	Latin.	German.	
	12	English.	French.	English.	French	English.	
	2	German.	Greek.	Physics.	Greck.	Physics.	
	3		Latin.			Latin.	
-	4		Beginners' German.	Begion rs' German,	Beginners' German.	Roginners' German,	
	5						

In case no students wish to take both Greek and German, Greek may, if desired, he taken where German is shown.

# FACULTY OF ARTS (SESSION 1906-1907).

# SECOND YEAR-MEN.

Hours.	Monday	TUESDAY	WEDNESDAY	THURSDAY.	FRIDAY.	SATURDAY
9	Latin	German. Hebrew.	French.	French.	Latin.	Chem. Lab.
10	German. Hebrew.	English	Chemistry.	Chemistry. Hebrew.	French.	Chem. Lab.
11	French.	Logic and Psychology.	English	English.	German. Hebrew.	Bot. Lab. (b
12	Chemistry.	Latin.	History.	Latin.	Logic and Psychology.	Bot. Lab. (b
2	English.	Mathematics.	Logic and Psychology.	Mathematics. Bot. Lab (b).	Mathematics. Biology.	
3	Greek.	Greek. Zool. Lab. (a)	German.	Greek. Bot. Lab. (b)	Greek. Economics, Zool. Lab. (a)	
4	Chemistry.	Zool. Lab. (a) Economics.			Zool. Lab. (a) History.	
5	Chem. Lab.					

# SECOND YEAR-WOMEN.

Hours.	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Latin.	French.	French.	English.	German.	Chem. Lab.
10	English.	English.	Chemistry.	Chemistry.	Latin.	Chem. Lab.
11	French	Logic and Psychology.	English.	Latin.	French.	Bot. Lab. (b)
12	Chemistry	Latin.	German.	German.	Logic and Psychology.	Bot Lab. (b)
2	Greck. Biology (a)	Mathematics. Biology (b)	Logic and Psychology.	Mathematics. Biology (a) Bot. Lab (b)	Mathematics. Biology (b)	
3	Zool. Lab.(a)	Greek. German.	Greck.	Greek. Zool Lab. (a) Bot. Lab. (b)	Economics.	
4	History Zool. Lab. (a)	Chem. Lab. Economics.		Zool. Lab. (a) History.		
5		Chem. Lab.				

<sup>(</sup>a) Before Christmas.

<sup>(</sup>b) After Christmas.

FACULTY OF ARTS (SESSION 1906-1907).

# THIRD AND FOURTH YEARS.

Hours	. Monday.	-TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY.
9	Geology. Mechanics. Sanskrit.	Chemistry. English.	Geology. Astronomy Sanskrit.	Latin. Hebrew	Zoology. English.	Chem. Lab. Geol. Lab.
10	German. Greek. History. Mathematics Botany. Physics (B).	German, Greek, History. Mathematics.	German. Greek. History. Mathematics.	German. Greek. History. Mathematics. Botany. Physics (B)	Geology. Mechanics, Sanskrit.	Chem. Lab. Geol. Lab.
11	Chemistry. English.	Latin. Hebrew.	Latin. Hebrew.	Chemistry. Psychology.	Latin. Hebrew.	Chem. Lab. Geol. Lab.
12	Economics. French. Moral Philos.	Economics. French, Moral Philos. Physics (A)	Eng. Comp.	Economics. French. Moral Philos. Physics (A)	Economics. French. Moral Philos	Geol. Lab.
2	Comp. Philol. Polit. Science Chem. Lab. Physics Lab. Zool. Lab.	Mechanics. Sanskrit. Pedagogy.	Polit. Science, Zoology.	Comp. Philol. Polit. Science. Physics Lab. Zool. Lab.	Polit. Science Pedagogy	
3	Psychology, Chem. Lab. Physics Lab. Zool. Lab.	English Mathematics, Psychology, Bot. Lab.	Eng. Comp. III. Chem. Lab. 4th year.	Psychology. Physics Lab. Zool. Lab.	English. Bot. Lab.	
4		Logic & Meta. Roman Law. Bot. Lab.	Logic & Meta. Roman Law. Chem. Lab.	Roman Law. English.	Logic & Meta. Cons. Law. Rom. Law (a) Bot. Lab.	
5		Const. Law(a) Botany Lab.	Chem. Lab.	Const. Law (a)	Bot. Lab.	

<sup>(</sup>A) Heat, Light and Sound.

<sup>(</sup>B) Magnetism and Electricity.

<sup>(</sup>a) During Second Term.

FACULTY OF APPLIED SCIENCE—(SESSION 1906-1907.)

FIRST YEAR.

	Room	M 3	,		•		
	SATURDAY	English. Drawing. Hist. Arch.	Drawing Hist. Arch. Shop (J), (C). Shop (S&F), D Physics Lab. (E)	Do	Do		
	Room	52 52 Arts		Arts (M1 M2 M2	{ M 1 2 2	52 Arts	52 Arts
	FRIDAY	Des. Geoni. (a). Lettering (b). Mathematics,1*	M 1 Des. Geom. (a). M 2 Lettering (b).	French, 1* Mathematics.	Lettering, 1. Mathematics.	Des. Geom. Pol. Sci. †	Do (4-5 P.M.) English†
	Коом	Artŝ	{ M 1 2 M 2	$\left\{\begin{matrix} Arts \\ M & 1 \\ M & 2 \end{matrix}\right.$		Arts	
	THURSDAY	Mathematics, 1*	History, 1*† Mathematics.	Englisht Mathematics.	English, 1. Physics.	Physics, 1. Pol. Sci. † Shop (J), (E). Shop (S & F), C Phys. Lab. (b)	Shopwork, 1. Shop (J), (E) Shop (S & F), C Phys. Lab. (D)
-	Коом	Arts 52		M 3	{ M 1 2 M 2	52 Arts	52
	Wedneshay	French, 1* Lettering.	History, 1*† Lettering.	Mathematics.	English, 1. Mathematics.	Freehand Dr. Pol. Sci. †	Dο
	Коом	Arts	Arts [ M 1 M 2 M 2	( M 1 M 2		Arts	
	TUESDAY	English† Mathematics, 1*	History, 1*† Mathematics.	French, 1* Mathematics.	English, 1. Physics.	Physics, 1. Pol. Sci. † Shop (J), (D). Shop (S& F), (E) Phys. Lab. (C)	Shop (J), (D) Shop (S&F).(E) Phys.Lab(C),1
	Коом	Arts	Arts [ M 1 M 2	M 1 M 2	M 3	52	52
	Monday	Mathematics, 1* Arts	History, 1*† Mathematics.	English† French, 1* Mathematics.	English.	Des. Geom.	$D_0$
	Ночя	6.	10	11	12	6.1	3 to 5

(A) One-half of class. (B) One-half of class. (C) One-third of class. (D) One-third of class. (E) One-third of class. (a) First term. (b) Second term. (S) Smithy. (F) Foundry. (J) Carpenter (Joiner) Shop. (M 1, M 2, M 3) Molson Hall. \* In Arts Building. 1. Architectural Students. † Arc Arts courses, third year, which are taken by double course men in their third year.

FACULTY OF APPLIED SCIENCE—(SESSION 1906-1907.)

SECOND YEAR.

Houn	Monday	Коом	Trespay	Коом	ROOM WEDNESDAY	Room	Tangani	Room	Funax	Room	SATCHDAY	Room
0	Building Con., 1 Mathematics.	I N	Mathematics. M 1 Theory of Arch	- 2 M	Mathematics. Ornament & Decoration, 1	N 3	History, I. Mathematics.	N 1 N 2	Surveying (C) & (D), 1	:: ::	Chemical Lab. (C) and (D). Hist, Arch. Dr.1	
=	Bldg Con. Det., I		Rhl. Con. Det.,1 Chem. Lab. 2. Mat.Con (A)(B)	53	Mathematics. Ornam, Des., 1	N   1   1   1   1   1   1   1   1   1	Bldg Con.Det.,1. Physics.		Mathematics.	( N 2 2 N 2 2 N 2 2 N 2 2 N 2 2 N 2 N 2	130	
=	Bldg.Con.DetI Chem. Lab., 2 Mech. of Mach.		Chemistry. Reference, 1		Mat. of Cons. (C) & (D) Mech.of Mach. (A) and (B) f Ornam. Des., 1.	£ 51 .	Bldg.Con.Det.,1		Mathematies,1* Surveying (A) & (B)	رن دو	Do	
21	Bldg Con. Det. 1 Chem. Lab., 2 Mech. of Mach.		Reference, 1. Surveying (C) & (D)	i i	Chemistry. Ornam. Des., 1		Chem. Lab., 2 Mech. of Mach., (C) & (D) Surveying, (A) & (B), 1.	<u>21</u> %	Chemistry.		Dο	
© 0	Freehand Dr., 1 Nochamical Drawing (D)   Physical Cab. (R) (R) (R) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C		Design., 1 (3-5 p.m.) Mapp. (C) & (1) Mathematics, 1* (2-3 p.m.) Mechanical Drawing (A) Shopwork (B)		(Them. Lah. (A) & (B) (2-6 p.m.) Freehand Dr., (3-5 p.m.) Mapping, 1, (2-3 p.m.)		Chem. Lah. 2, Map., b, (3-5p.m) Map., (3-5p.m) Mathematics, 1* (2-3 p.m.) Mech. Dr. (1) Shopwork (D)		Design., 1. Weeh., Dr. (B) Physical Lab., {(A) & (P) } Shopwork (C)			

FACULTY OF APPLIED SCIENCE—(SESSION 1906-1907).

THIRD YEAR.

Коом			
SATURDAY	Hist. Arch.Dr. 1 Geol. Excursion (c) 2, 3, 6, 7 Test'g Lab. (b) 73, 8, 6, 7 Assay Lab. (d) 6, 7 and 2**	Do	Do
Коом	21 and M 1		D.R.
FRIDAY	Math., 3, 4, 5, But Geol. Excursion (6, 2, 3, 6, 7, 2) M I Test'g Lab. (7, 3, 4, 5, 4, 5) A Ssay Lab. (1, 3, 4, 5) A Ssay Lab. (1, 4	Geol., 2, 3, 6, 7 Shopw'k (F), (b) 5 Design., 1	Trans (b) 5 Eree. Dr (b) 1 Graphical Stat., (a) 3.4, 5,7,and 6**, Shopw'k (b) 5 Org. Chem., 2 Design., 1 Survey., (b) 3, 7
Коом	53.53	21	22 53
THURSDAY	D.C. Mach., 4, 5 Mineral., 2, 6, 7	Hist. of Arch., 1 Mach. Des., 4, 5 Chem. Lab., 2 Min. Mach., 6, 7	Mach.Des., 4, 5 Roads & Can., 3 Chem.Lab.(a), 7 Ore Dr., (b) 6, 7 Reference, 1 Min. Mch,(a)6, 7
Коом	30	52	
ROOM WEDNESDAY ROOM	Mech.of Mch.,4, 5 Geol., 2, 3, 6, 7 Orn. & Dec., 1	Chem., (b) 2, 6 Mec.Eng.Lab. 5 Shopw'k (P&M)  Survey, (a)3, 7 Ornam. Des., 1 Rail. Eng., (b) 7	Des. Geom. (a) 1, 3 Mec.Eng.Lab., 5 Metall. (a)2.6,7 Min. Mch.(b)6,7 Shopw'k (P&M) 4 Orn. Des., (b) I
Room	53	30	523
TUESDAY	D.C. Mach., 4, 5 Mineral., 2, 6, 7 Roads & Can's,3 San. & Heat., 1	Met. Lab. (a) 6 Ch.Lab. (a)2(b)6 Elect. Meas., 4 Org. Lab. (b) 2 Survey., 3, 7 Thermody., 5 San.Eng.Det., 1	Chem.Lab (a) 2 and (b) 6** Org. Lab. (b) 2 Theo. of Struc 3, 4, 5, 7, 6** San.Eng. Det., 1 Met. Lab. (a) 6**
Room		30	30
Monday	Geol., 2,3, 6,7 Hist. of Arch., I	Mech. of Ma.,4,5 Metall.(a),2,6,7 Ore-Dr. (b),6,7 Design, 1 Transport'n, 3	Chem. (a), 6.7 Thermodyn. 5 Rail. Eng. (b), 7 Design., 1
Ноив	Φ	10	11

BLCTOND	i i
D.R. Museum work in Geology (d) & b) 2, 3, 6.7	
S. Mus	
7 % ax t =0	Det. Min., 2, 6,7 Graph. Sta., (a) 3 Phys. Lab., 4 Struct. Eng., 3 Dyn. Lab., 5 Struc. Eng. Det.,
Chem. Lab. (a)   Chem. Lab. (a)   Chem. Lab. (a)   Erec. Drawing (b) 1   Craphical   Stat. (a) 13.,   Stat. (a) 13.,   Stat. (b) 13.,   Chem. Lab. (b) 13.,   Chem. Lab. (b) 13.,   Chem. Lab. (c) 13.,   Chem. Chem. Chem. (c) 13.,   Chem	Chem. Lab., 6;  (a) 2, (b) 7  Des. Geom.(a) 3  Det. Min., 2, 6, 7  Dyn. Lab., 4  Mapping, (a) 7  Railway Struc. (b) 3  Org. Chem. Lab  (h) 2  Free. Draw., 1  (h) 2  (h) 3  (h) 4  (h) 2  (h) 2  (h) 2  (h) 3  (h) 4  (h) 2  (h) 2  (h) 2  (h) 3  (h) 4  (h) 2  (h) 2  (h) 2  (h) 3  (h) 4  (h) 2  (h) 4  (h) 6  (h) 6  (h) 6  (h) 6  (h) 7  (h) 7  (h) 7  (h) 1  (h) 2  (h) 2  (h) 3  (h) 4  (h) 6  (h) 6  (h) 6  (h) 6  (h) 7  (h) 8  (h) 1  (h) 2  (h) 1  (h) 2  (h) 2  (h) 3  (h) 4  (h) 6  (h) 6  (h) 6  (h) 6  (h) 7  (h) 7  (h) 7  (h) 7  (h) 8  (h) 1  (h) 1  (h) 2  (h) 1  (h) 2  (h) 2  (h) 2  (h) 3  (h) 4  (h) 4  (h) 6  (h) 6  (h) 6  (h) 6  (h) 7  (h) 7  (h) 8  (h) 8  (h) 8  (h) 8  (h) 8  (h) 9  (h) 9
Metallurgy, (a) 2, 6, 7 Chem. Lab., 2; (a) 6 Mech. Eng. Lab 5 Shopwork (P & M) 4 Minic. Eng., 3 Orn. Des., (b) 6, 7	Chem. Lab., (a) 2, 6, 7 Mapping, 3 Chem. Lab (b) 2** Phys. Lab., 4 Assay Lab., (b) 6, 7; 2** Ore-dress, Lab., (b) 6, 7 Shopwork (P & M) 5 Perspec., (a) 1 Rendering, (b) 1
91 91	
Metall. Lab. (a) 6**  Ghem. Lab., (a) 2 and (b) 6**  7 and 1**,6**) M 1 Org. Lab. (b) 2  7 and 1**,6**) and 21 Theory of Struction (b) 3, 4, 5, 7  Design., 1  Graph. Statics, (c) 3, 4, 5, 7  and 6**	Chem. Lab. (a) 2, (b) 2** Dyn. Lab., 4 Mupply, 3; (a) 7 Assay Lab., (b) 6, 7, 2** Ore-dress, Lab., (c) 6, 6, 7 Shopw'k (P & M) 5 Strue, Eng. Dt., 1 Metal. Lab. (a),
M 1 and 21	
Math., 3, 4, 5, ) 7 and 1**, 6**, J hnd. Chem. (a) 2, 6 Design., 1	Them, Lab.(a)2  Mec Draw, 4, 60 ff, 7 (0) g.Chem, Lab. (b) 2  Free, Draw, 1
53	53 50 10

(a) First term. (b) Second term. (c) First half of first term. (d) Second half of first term. (f) Second half of second term. I. Architectural Students. 2. Chemistry Students. 3. Civil Engineering Students. 4. Electrical Eng. Students. 5. Mechanical Eng. Students. 6. Metallurgical Students. 7. Mining Eng. Students. 7. Mining Eng. Students. \* Third Year Architects with Second Civils. \*\* Alternative Courses. Shopwork; F, Foundry; M, Machine Shop; P, Pattern Shop.

Shop; P, Pattern Shop.
The Chemical Laboratorics are open to Second, Third and Fourth Year Classes daily (Safurday excepted) from 9 a.m. to 5 p.m.

FACULTY OF APPLIED SCIENCE—(SESSION 1906-1907.)

FOURTH YEAR.

	LECTURE TI	ME TABLES	•
Коом			
SATURDAY	Design., (a) 6,  7 Chem. Lab., 2 Hist. Draw., 1 Geodetic Lab., 3 Min. and Mctal. Lab., (b) 6, Shopw'k (M), 5 Mec. Eng. Lab.4	Do	Do
Коом	30	43	43
FRIDAY	Mech Eng., 5 (a)3, 4, 6, 7 Mining (b) 7 Th. of Plan., 1 Metal. Lab. (b)6	Elec. Eng., 4 Geodesy, 3 Designing, 1 Mec. Eng. Lab., 5 Min. and Metal. Lab., 6, 7	A. C. Mach., 4 Designing, 3, 1 Mec. Eng. Lab., 5 Min. and Metal. Lab., 6, 7 Org. Chem., 2
Коом	43	30	43 53 30
THURSDAY	D. R. Hydraulics, (a) 3,4,5,7 }  Hydr. Mach etc (b) 3, 4,5 }  Phys. Chem, 2,6 Mining, (b) 7  D. R.	Hist. of Arch., 1 Design., (b) 3 Mech., Eng., 5; (a)3,4,6,7 Colloq. (b) 6,7	D. R. Ore Dr., (a) 6, 7 A. C. Mach, 4 Min. Mach., (b) 6, 7 6, 7 Rail. Eng. 3 Thermodyn., 5 Reference, 1
Room	43 D. R. D. R.		
Wednesday	Th. of Strue., 3 Mech. of Mach., (a) 5 Orn. and Dec., 1 Metall., (b) 6 Mining, (b) 7 Ore Dressing, (a) 6, 7 Thermodyn., (b) 5	Designing, 3 Mech. of Mach., (a) 5 Elec. Eng., 4 Orn. Design., 1 Thermody., (b) 5 Min. Mach., 6, 7	A. C. Mach., 4 Designing, 3 Mech. of Mach., (a) 5 Orn. Des., 1 Mineralogy, (a) 2, 6, 7 Ore. Dep., (b) 6, 7 Thermodyn.,(b) 5 Transport'n, 3
Room	30	43	45
TUESDAY	San. & Heat., 1 Mech. of Mach., 5 Mining, 7 Phys. Ch., 2. 6 Rail. Eng., 3	San. Eng. Det. 1 Mec. Eng. Lab.5 Ore Dep., (b)6,7 Petrog., (a) 6,7 Th. of Str., 3, 1 1 (0pt.) Thermodyn., 4* Org. Chem., 2	San. Eng. Det.,1 Elec. Eng., 4 Metal. (b) 6 (b) Physiog. 77** Mec. Eng. Lab.5 Ore-Dressing, (a) 6, 7 Org. Chem., 2
Room	30	43	43
Monbay	Designing, 3 Histr. of Arch., 1 Minning, 7 Thermodyn., 5	Elec. Met. (b) 6 Design., 1 Hydr., 3, 5, {	Design., 1 Min. Mach., 6, 7 Th. of Str., 3 Thermodyn., 4*
Hour	6	10	11

Do	
Elec. Ch., (b) 4 Designing 1 Mec. Eng. Lab.5 Min. and Metal. Lab., 6, 7 Th. of Str., 3,1**	Chem. Lab., 2 Dyn. Lab., (a), 4 Graph. Stat., 3, 1** Nec. Eng. Lab.5 Min. and Metal. Lab., 6, 7 Struc. Eng. Det.,
Can. Geol., (a) 7 Deskning, 3 Mec. of Mach., 5 Org. Chem., 2 Prac. Geol., (b) 7 Metall., 6 Reference, 1	Crys. Meas., (b) 2 Ch. Lab., 2, 6, 7 Design., 3, 4, 5 Test. Lab., 3, 1** Design., 1
Elec. Ch., (b) 4 Mach. Des., 5; (a) 4 Mineralogy (a) 2, 6, 7 Ore Dep., (b) 6, 7 Orn. Des., 1 Municip. Eng. 3	Chem. Lect. & Lab., 2, 6; (b) 7 7 7 8 1 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2
San. Eng. Det.,1 Designing, 3 Mee. Eng. Lab.5 Metall., 6, 7	Strue. Eng. Dt., J. Chem. Jab., 2; (a) 6, 7 (b) 5. Hydr. Lab., (a) 3, 4 Mech. Eng. Lab., 5 5 Petrog. Lab. (b) 6, 7
Design., 1 Chemistry, 2 Geodesy, 3 Mach., Des., 5; Metall., 6, 7 Elec. Chm., (b) 4	Chem. Lab., 2; (a) 6, 7 Designing, 3, 5; (b) 6, 7 Free, Dr. 1 Dynamo Lab., 4 Fest. Lab., 3
21	5 5 7

\*\* Alternative courses. (a) First term, (b) Second term, (c) First half of Second term, (f) Second half of Second term, (P) Pattern Shop. I. Architectural Students. 2. Chemistry Students. 3. Civil Eng. Students. 4. Electrical Eng. Students. 5. Mechanical Eng. Students. 6. Mechanical Students. 7. Mining Eng. Students. \* Fourth Year Electricals with Third Year Mechanicals. The Chemical Laboratorics are open to Second, Third and Pourth Year classes daily (except Saturday) from 9 a.m. to 5 p.m.

FACULTY OF LAW (SESSION 1906-1907.)

### FIRST YEAR.

Tuesday, 11th Sept., to Friday, 16th November-9 Weeks.

Hours.	MONDAY.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8,30		Roman Law. The Dean	Procedure. Mr. Gordon Macdougall.	Roman Law. The Dean	Procedure, Mr. Gordon Macdougall,
4.00	Roman Law. The Dean.	Pleading. Mr. Surveyer.	Constitutional Law. The Dean.	Pleading. Mr. Surveyer.	Roman Law. The Dean
5.00	Legal History. Prof. McGoun.	Persons. Mr. Gordon Macdougall.	Hist.	Persons.	Hist.
	Monday, 191	TH Nov., TO	Friday, 21st	Dec.—5 wei	eks.
Hours.	Monday.	TUESDAY.	WEDNESDAY.	Thursday,	FRIDAY.
8.30		Procedure.	Procedure. Mr. Gordon Macdougall.	Proced.	Procedure. Mr. Gordon Macdougall
4.00	Roman.	Pleading. Mr. Surveyer.	Constitutional Law: The Dean.	Pleading. Mr. Surveyer.	Roman Law The Dean.
5.00	Real Rights. Prof. Marler	Persons.	Persons.	Persons.	Real Rights.
7	Monday, 7t.	и Јан., то Е	FRIDAY, 1ST N	farch—9 we	EKS.
Hours.	Monday.	TUESDAY.	WEDNESDAY,	THURSDAY.	FRIDAY.
8.30			Obligations.		Obligations.
4.00	Roman.	Pleading Mr. Surveyer.	Rom.	Pleading. Mr. Surveyer.	Rom.
5.00	Real Rights. Three Weeks,	Constitutional Law. The Dean.	Real Rights.	Const.	Real Rights.
1	Monday, 4th	March, to I	RIDAY, 29TH	March-4 w	EEKS.
Hours.	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.
8.30		Constitutional Law.		Rom.	
4.00	Roman.	Pleading. Mr. Surveyer.	Rom,	Pleading. Mr. Surveyer.	Constitutiona Law. The Dean
	Criminal Law.			Const.	Crim.

FACULTY OF LAW (SESSION 1906-1907).

## SECOND AND THIRD YEARS.

SECOND AND THIRD TEARS.									
Tursday, 11th Sept., to Friday, 16th November-9 weeks.									
Hours.	Monday.	Tuesday,	WEDNI SDAY.	THURSDAY.	FRIDAY.	SATURDAY.			
8.30	Successions.	Civ. Procedure, Mr. Ryan.	Successions.	Civ. Proced.	Successions.	Prescription, &c. Prof.Geoffrion			
4,00	Prescription, Ac. Prof.Geoffrion	Obligations. The Dean.	Prescription, &c. Prof Geoffrion	Obligations. The bean.	Prescription, &c. Prof.Geofficion				
5,00	Criminal Law. Prof.Mr. Justice Davidson.	Commercial Law. Prof. R. C. Smith	Crim.	Comm. Law,	Crim.				
	Morda	Y, 19TH NOV.	, to Friday,	21sт Dec —5	WEEK-				
Hours.	Monday.	Tuesday.	WEDNESDAY.	THURSDAY.	F. IDAY.	SATURDAY.			
5.30	Successions.	Civ. Proced.	Successions.	Civ. Proced.	Succ ssions.	Prescription, &c. Prof.Geoffrion			
4.00	Prescription, &c. Prof. Geoffrion	Obligations. The Dean.	Prescription, &c. Prof. Geoffrion	Obligations. The Dean.	Prescription, &c. Prof.ticoffrion				
5 00	Criminal.	Commercial Law.	Crim.	Comm. Law.	Crim.				
Monday, 7th Jan., to Friday, 1st March—9 weeks.									
Hours.	Monday.	TUESDAY.	WEDNESDAY.	THURSDAY.	FRIDAY.	SAFURDAY. 9 a.m.			
8,30	5 weeks. Civ. Proc. 4 wks.	Companies, Prof. McGoun.	Successions. Civ. Proced.	Companies.	Successions. Civ. Proced.	Prescription &c. Prof.Geotfrion			
(, 1)0	Real Property Law. Prof. Marler. 6 weeks. N.B. This course will begin after the completion of Prof. Mar- ler's course to the first year.		Real Property Law.	Obligations.	Real Property Law.				
5,00	Pub ic Inter- nat. Law. Prof. Laffeur.	Commercial Law, Prof.R. C. Smith	P. I. L.	Comm. Law.	P. I. L.	planed? "definition			
	MONDAY	4TH MARCH,	TO FRIDAY,	29ти Макси-	-4 WEEKS.				
Hours.	Monday.	Tursday,	WEDNESDAY.	THURSDAY.	FRIDAY.	SATURDAY. 9 a.m.			
5 50	('ompanies	Civ. Proced.	Companies	Civ. Proced,	Companies.	Prescription, &t Prof. Geoffrion			
4,00	R. P. L.	Obligations.	R. P. L.	Obligations,	R. P. L.				
5.00	Commercial Law.	P. I. L.	Comm. Law.	P. I. L.	Comm. Law.				

# TIME TABLES OF LECTURES AND LABORATORY WORK.

FACULTY OF MEDICINE (SESSION 1905-1906. THIRD YEAR.

LECTURES.	Mon	Tues.	Wed.	Thur.	Fri.	Sat.	Lecture Theatre.
Obstetrics	9		9				Win, and Sp. Term No. III.
Medicine		10	§11-12	10			Session No. III
Surgery	10		§12-1		10		Fall and Win. No. III
Jurisprudence	11			11			Fall'& W. Term No. III
Therapeutics		9		9			Session No. III
General Pathology			10		9		Winter & Sp. No. III
and Bacteriology			9		9		Autumn Term No. III
Hygiana			4		11		Winter Term No. III
Hygiene	10				10	,	Spring Term No. III
Morbid Anatomy						9-11	
Clinical Medicine	1	1 p.m.		1 p.ni.	1		
Cilinical Intestication	R.V.H	M.G.H		R.V.H	M.G. 11.		
Clinical Surgery	1	2		1	2 p.m.		
	M.G.H	R.V.H.		M.G.H.			
Practical Pathology	4-6	4-6		4-6	4-6		Winter Term, Path. Lab.
‡Bacteriology	4-6	4-6		4-6	4-6		Autumn Term, Path. Lab.
†Clinical Microscopy	46	4-6		4-6	4-6		Spring Term, Path. Lab.
†Practical Hygiene	4-6	4-6		4-6	4-6		Win & Sping Terms Hyg. Lab.
††Operative Surgery	5-6	5-6	5-6	5-6	5-6	5-6	Dissecting Room, Spring Term.

§ Double Clinics, Alternate weeks M.G.H. and R.V.H. † Optional. † Classes taken in groups.

### FOURTH YEAR.

LECTURES.	Mon.	Tues.	Wed.	Thur.	Fri,	Sat.	Lecture Theatre.
Obstetrics	9		9		9		Fall term No. IV
Gynæcology					9		Win. & Spring No. IV
Mental Diseases		9	***	9			Session No. IV
Medicine	• • • • • • • •	10	10	10	5		Fall Term No. IV
Surgery	10	10	‡11–12 ‡12–1	10	10		Fall & Win, No. IV Session No. IV
Med, and Sur. Pathology	9		9				Wint. & Spring No. IV
Ophthalmology		.,	5				Session No. IV
Medical and Surgical							Autumn Term
Anatomy	5						No. IV
Children's Diseases			 		5		
*Out Patients' Clinics {	12-1	12-1	2-1	12-1	12-1	12-1	M. G.H. ( R V. H
Clinical Medicine	1	1		1	1		R. V. H. M. G. H.
Clinical Surgery	2	1		2	1	 	M. G. H. R. V. H.
Gynæcological Operations.		11	4			••••	M. G. H. R. V. H.
*Clinical Ophthalmology {	3	3	3		3		М. G. H. R. V. H.
†Gynæcological Clinics {	3	4		4 3			M. G. H. R. V. H.
Morbid Anatomy						9-11	
Clinical Obstetrics						1-3	Maternity
*Dermatological Clinic							Hospital.
Genito-Urinary Clinic			2			11	м. G. н.
Pediatric Clinic				•••••		3	R. V. H.
			• • • • •	4			M. G. H.
*Laryngology	3	3	• • • • • •		3		M. G. H. R. V. H.

# TIME TABLES OF LECTURES AND LABORATORY WORK.

FACULTY OF MEDICINE (SESSION 1905-1906).

FIRST YEAR.

Time Tables for the Session 1906-1907 will be issued to students with their Lecture Room tickets at the time of registration. These will differ slightly, if at all, from those here shown.

							A STATE OF THE PARTY OF THE PAR
LECTURES.	Mon.	l'ues.	Wed.	Thur.	Fri.	Sat.	Lecture Theatre.
Anatomy	9	9	9	9	()		A itumu Term.
Physiology	4	4		4	3		Winter & Spring University Spring
Medical Physics	2		2	2			Autumn Term No. III.
Chemistry		2	•)	2			Winter & Spring Terms No. 111
Biology		6) arr			•)		Autumn Term Redpath Museam
Embryology	9		9		9		Spring Term Zoolog Lab.
Bacteriology		9					Spring Term No. I
LABORATORY WORK.							
Practical Anatomy	{ 9-1	9-1	9-1	9-I	9-1	9-1 9-1	Witter Term.
							Win. & Sp. Terms.
*Prac. Physiology	2-4		3-9			* * * * * *	William Sp. Letins.
*Prac. Histology			4-6		4-6	9-12	Win, & Sp. Terms
Prac. Embryology	10-11		10-11		10-T1		Spring Term Zoolog, Lab.
*Prac. Chemistry	9-11	9-11	9-11	9-11	9-11	9-11	Winter Ferm
*Prac. Zoology		3-6			3-6		Biological Labora- tory, Arts Bld'g.
*Prac. Bacteriology		10-12				9-11	Antumn Term. Spring Term.

<sup>·</sup> Class taken in divisions.

### SECOND YEAR.

LECTURES.	Mon.	Tues.	Wed.	Thur-	Fri.	Sat.	Lecture Theatre.
Anatomy	9	9	9	9	9		Winter Term No. II.
Physiology	2		2		2		Session No. I
Organic	3		3		3		Autumu Teru No. 111.
$ \begin{array}{l} \textbf{Chemistry} \left\{ \begin{array}{l} \textbf{Organic} \dots \dots \\ \textbf{Applied Medical.} \end{array} \right. \end{array} $	3						Winter & Spring No. 111.
Pharmacology			3		3		Winter & Spring No. II.
Pharmacy	5		5				Antumn No. II.
Pathology	4		4				Spring No. IV.
LABORATORY WORK.							
Practical Anatomy	9-1 10-1		9-1 10-1	9-1 10-1	9-1 10-1	9-1 10-1	Autumn Term. Winter
†Applied Medical Chemistry	9-12	9-12	9-12	9-12	9-12	9-12	Spring Term.
†Prac. Physiology		2-5		2-5			Sessin
†Prac. Histology		4-6		4-6		9-12	Antumn Term.
†Prac. Pathology	10-12			10-12			Spring Torm,
†Demonstrations and Laboratory Work, Pharmacology		2-4		2-1			Sc 48 OH.

t Class taken in divisions.

Note.—Students of the second year are required to attend Medical and Surgical Demons rations at M. G. H. and R. V. H.—Spring term in groups. Certificates required for graduation.

Note.—Students taking B. Sc., M. D. course will have W du sday aft ru ous and Saturday mornings free for advanced Science Work.

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### EXAMINATION TIME TABLES.

MATRICULATION EXAMINATION.

SEPTEMBER, 1906.

MONDAY, SEPTEMBER 10TH.

Morning 9-10.30.—English Grammar.

10.30-11.—English Dietation.

11-12.—English Composition (Prelim.)

Afternoon 2.30-4.30.—English Literature and Composition.

4.30-6.—History.

TUESDAY, SEPTEMBER 11TH.

Morning 9-11.—Latin Grammar and Composition.

11-12.30.—Arithmetic.

Afternoon 2.30-4.30.—Latin Books and Sight Translation.

WEDNESDAY, SEPTEMBER 12TH.

Morning 9-11.—French.

11-12.30.—Trigonometry.

Atternoon 2.30-4.30.—German.—

4.30-6.—Chemistry and Botany.

THURSDAY, SEPTEMBER 13TH.

Morning 9-11.—Geometry, Part I.

11-12.30.—Physics and Physiography.

Afternoon 2.30-4.—Algebra, Part II.

4-5.30.—Geometry, Part II.

FRIDAY, SEPTEMBER 14TH.

Morning 9–11.—Algebra, Part I.

11-1.—Greek Grammar and Composition.

Afternoon 3-5.—Greek Books and Sight Translation.

FACULTY OF ARTS.

EXHIBITION; SCHOLARSHIP AND SUPPLEMENTAL EXAMINATIONS, SEPTEMBER, 1906.

DATE.	liour.	Supp. to First Year Sessional.	Second Year Exhibitions.	Supp. to Second Year Sessional.	Scholarships (Third Year).	Supp. to Third Year Sessional.
Monday 10	<b>a</b>	English Literature.	English Literature (Shakspere); History.	English Lilerature.	English Literature (Shakspere and Milton).	English.
-	2.30	English Composi- tion and History	English Literature. (Milton, Johnson).	English Composition.	(Burke & Arnold).	
Tuesday11	6	Latin Books.	Latin Books.	Latin Books,	Latin Translation at Sight.	Lutin Books.
	2.30	Latin Composition. Sight Translation and History.	Latin Composition, Sight Translation and History.	Latin Composition, Sight Translation, History and Literature.	Latin Composition, and Language.	Latin Composition, Sight Translation, History and Literature.
Wednesday. 12		French.	French.	French.	French Books. Economics,	French: Botany.
	2.30	German.	German.	German.	French Composi- tion and Sight.	German.
Thursday13	G	Algebra.	Alg., Trig.	Algebra.	Chemistry. Analytic Geometry. Rom. Hist. and Lit., 9-10.30. Greek Hist. and Lit., 10 30-12.	Mathematics,
	2.30	Trigonometry.	Geometry.	Psychology.	German Books. Trig. and Alg. Chemistry	Chemistry.
Priday 14	0	Greek Books.	Greek Books.	tireek Books. Logic.	Greek Translation at Sight; Physics.	Greek Books.
	23.30	Greek Composi- tion, Sight Trans- lation and History.	Greek Composition, Sight Translation and History.	Greek Composi- tion, Sight Trans- lation, History and Interature.	Greek Composition and Laugnage. Economics.	tireek Composi- tion, Sight Trans- lation, History and Literature.
Saturday16	6	Physics.	Theory of Equations.	Conics and Solid Geometry. Biology.	Calculus; German. Comp & Sight.	
	2.30	Goemetry.	Physics.	Chemistry. History and Economies	Modern History; English Composi- tion	

\* Periods for other subjects to be arranged at the time of the Examinations.

FACULTY OF ARTS.

# CHRISTMAS EXAMINATIONS, 1906.

	FIRST YEAR.	SECOND YEAR.	THIRD AND FOURTH YEARS.
Friday, Des. 14thA.M.	Latin.	Latin.	Latin.
P.M.		Geometry.	English.
Monday, Dec. 17thA.M.	Greek.	Greek and Comm. Geog.	Math.; Moral Phil.
" P.M.	Spanish.	Chemistry.	Geology.
Tuesday, Dec. 18thA.M.	Physics.	Psychology.	Greek; Econom.; Econ. Hist
P.M.	French.	French.	Physics (Third Year).
Wednesday, Dec. 19thA.M.	Geometry.	English.	Moral Philosophy; French.
P.M.	German.	German. Hebrew.	German; Italian; Botany.
Thursday, Dec. 20th A.M.	English.		Pol. Sci.; Greek Lit.
" P.M.		Biology.	Zoology; Political Science.
Friday, Dec. 21stA.M.			Physics.

FACULTY OF ARTS.

### Sessional Examinations, 1907.

Moving examinations commence at 9; afternoon examinations at 2.30.

DAY AND DATE.	FIRST YEAR.	SECOND YEAR.	THIRD AND FOURTH YEARS.	
Friday, April 5thA.M.		German.	English Composition.	
9.M.		German.	English	
Saturday, April 6th,, A.M.	Physics.		Physics.	
Monday, April 8th A.M.	English.	English.	French; Econ; Moral Ph.	
г.м.	English.	English.	French: Econ: Moral Ph.	
Tuesday, April 9th A.M.	Latin.	Latin.	Latin : Hebrew .	
·· Р.М.	Latin.	Latin.	Mechanics; Latin; Hebrew	
Wednesday, April 10th.A.M.	Algebra.	Chemistry.	Chemistry.	
и Р.М.	Trigonometry.	Chemistry.	Chemistry; English.	
Thursday, April 11thA.M.		Hist. & Econ.	Geology : Sanskrit : Astronomy.	
a P.M.		Hist. & Econ.	Geology; Sanskrit.	
Friday, April 12th A.M.	French.	Greek.	Logic & Meta.; Botany.	
Р.М.	French.	Greek.	Logic & Meta : Botany.	
Monday, April 15thA.M.	Greek.	French.	( History ; Greek, ( German , Math.	
r.M.	Greek.	French.		
Tnesday, April 16th A.M.	German.	Logic.	Political Science;	
e P.M.	German.	Hebrew.	English.	
Wednesday, April 17th.A.M.		Mathematics, Botany;Zoology	{ Psychology; Zoology.	
ν Р.М.		Mathematics. Zoology.	{ Psychology; Zeology	

FACULTY OF APPLIED SCIENCE.

## CHRISTMAS EXAMINATIONS, 1906.

(Subject to alteration by the Faculty.)

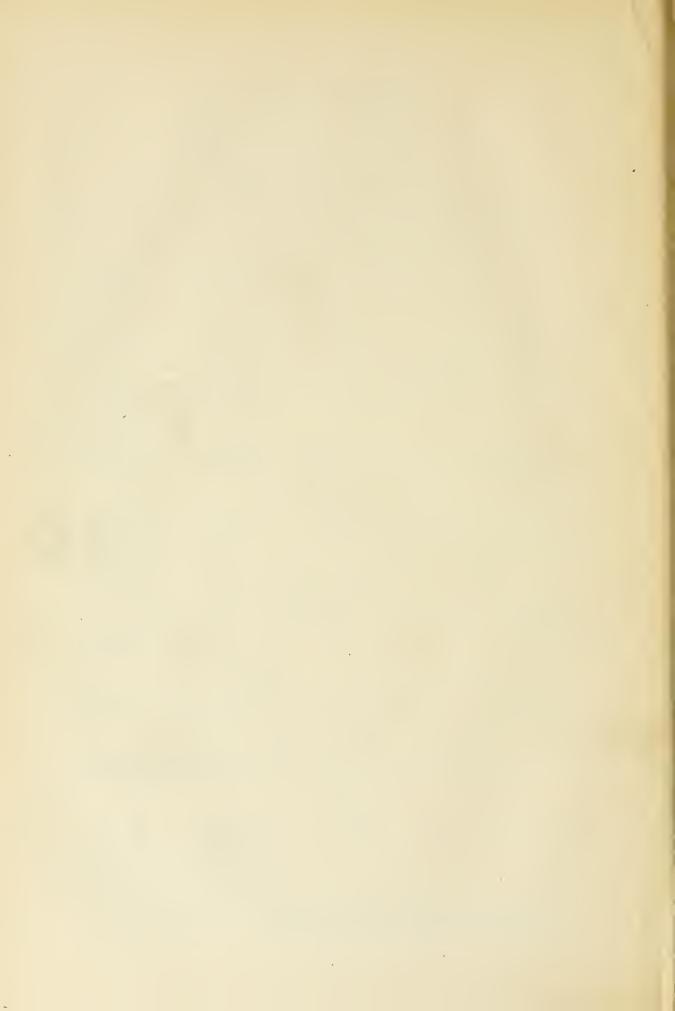
DAY & DATE.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR.
Monday, Dec. 17th, A.M.	Dynamics.	Arch. Ornament	Cont. Cur. Mchy. Arch. Ornament	Mechl. Eng.
P.M.		Chemistry (A) Arch. Orn. Des. (D)	Geology (A) Arch. Orn. Des. (D)	Arch. Orn. Des.
Tuesday, Dec. 18th, A.M.		Surveying.	Graph. Stat. (D)	Orc Dressing.
P.M.	Exp. Phys.	Arch. Hist. Det.	Roads and Canals	Roads and Canals
		(D)	Arch. Hist. Det. (D)	Can. Geol. (C) Arch. Hist. Det. (D)
Wedn'sday, Dec. 19th, A.M.		Mechanics.	Qual Anal. Arch. Specifications	Hydraulics. Arch. Specifications
Р.М.			Surveying.	Hydr. Lab. Arch. Design. (D)
Thursday Dec. 20th, A.M.		Anal. Geom. Arch. Des. (D)	Arch. Perspec. Des. Geom. (D)	Prac. Astron. Mach. Design. Metallurgy. Arch. Design. (D)
Р.М.	Geometry	Arch. Des. (D)	Arch. Des. (D) Mathematics	Arch. Design. (D)
Friday, Dec. 21st, A.M.	Geom.Dr.(D)	Exp. Physics	Metallurgy Hist. of Arch.	Elec. Lighting Hist. of Arch. Mineralogy (C)

Note.—Examinations begin at 9 a.m. and 2.30 p.m. Gowns will not be worn. C—Chemistry Building. D—Drawing Room. A—With Arts Classes. All other examinations in the Main Examination Hall.

FACULTY OF APPLIED SCIENCE, APRIL EXAMINATIONS, 1907.

(Subject to alteration by the Faculty.)

DAY & DATE.	FIRST YEAR.	SECOND YEAR.	THIRD YEAR.	FOURTH YEAR
Tuesday, 2nd A.M.	Des.Geom.(D)		Theo. Struct. Indus. Chem.	Theo. Struct. Metall. Cu. Pb. Mechl. Eng. Elec. Tract. (D)
Wednesday, 3rd A.M.		Arch. Orn. & Dec. Calculus	Arch. Orn & Dec. Annl. Chem.	Arch. Orn & Dec Petrography (C) Designing (D)
P.M.	Algebra			Designing (D)
Thursday, 4thA.M.		Mat. of Con.	Arch. Spec. & Pr. Pract. Astron. Con. Cur. Mchy. (D	Arch. Spec. & Pr. Mining Geodesy Thermo. Lab Mineral. Adv. (C)
Friday, 5th		Arch. Det. (D)	Arch. Det. (D) Thermodyn. Mineral. (C)	Thermodyn. Mining Mchy. Arch. Det. (D)
P.M.		Prac. Chem. (C) 1/2 class		
Saturday, 6thA.M.	Exp. Phys.	Exp. Phys. Arch. Hist.	Ore Dressing Arch. Hist. Munic. Eng.	Munic. Eng. Arch. Hist Mining Des. (C)
Monday, Stbа.м.		Meeh. of Mach.	Testing Lab.	Ore Dep. (C)
P.M		Arch. Theo. & Ev Prac. Chem. (C) ½ class	Struct. Eng. Elect. Meas.	Arch. Planning
Tuesday, 9thA M.		Arch. Bldg. Con. (D)	Arch. Struct. Det, (D)	Flectro-Chem. Hydraulies Metallurgy Arch. Str. Det. (D)
P.M.			Mechanics	Gas Anal. (C)
Wednesday, 10th A M.		Chemistry (A)	Org. Chem. (A) Des. Geom. (D) Mech. Dr. (D)	Hyd. Mach. Phys. Chem. (C)
Р.М.		Mech. Draw. (D)	Fire Assay. (C)	Phys. Chem. (C)
Thursday 11th A.M.	Trigonom		Geology (A) Much. of Mach.	Mech of Mach. Min. A rel (C) Arch. Design. (D)
P.M.		Surveying	Geology (A)	Arch. Design. (D)
Friday, 12th		Phys. Lab.	Mach, Design. Mining Mehy. Arch, Design. (D) R. R. Eng. (D)	Mach, Design A C. Mach. Arch Design Di R. R. Eng Di
P. M			Rouds and R.R. (D) Arch. Des. (D)	Phys & P Ges (*) Arch. De (D)



# McGill University.

### GENERAL INFORMATION.

# Foundation and Early History.

Almost alone in this respect among Canadian colleges and universities, McGill University owes its origin to a private en-Its founder, the Hon. James McGill, from whom the University takes its name, was born on the 6th October, 1744, in Glasgow, Scotland, where he received his early education and training. Emigrating to Canada before the American Revolution, he engaged in the North-West fur trade, then one of the leading branches of business in Canada. Subsequently he settled in Montreal, and, in partnership with his brother, Andrew McGill, became one of its leading merchants, distinguished for his public spirit and his exertions for the advancement of the city. He was lieutenant-colonel, and subsequently colonel, of the Montreal City Militia, and, in his old age, on the breaking out of the American war of 1812, he became brigadier-general, and was prepared to take the field in defence of his country. He also represented the West Ward of Monttreal in the Provincial Legislature, and was afterwards a member of the Legislative and Executive Councils. Cultivating and enjoying the society of the few men of learning then in the colony, he took a special interest in the establishment of an educational system in the Province of Ouebec. By his will, bearing date the 8th January, 1811, more than two years before his death, which happened on the 19th December, 1813, he bequeathed his property of Burnside and a sum of £10,000 in money to found a college in a provincial university, the erection of which had already been provided for by the generosity of the British Government. Three leading citizens of Montreal were among the trustees appointed under his will, who were directed to convey the subject property of the bequest to the Royal Institution for the Advancement of Learning, a body which, in 1802, had been incorporated by the Legislature "for the establishment of Free Schools and the advancement of Learning" in the Province of Quebec. The conditions upon which the property was to be transferred to the Royal Institution for the Advancement of Learning were, mainly, that that Institution should, within ten years after the testator's decease, erect and establish on his Burnside estate "an University or College, for the purposes of education and the advancement of learning in this Province," and that the college, or one of the colleges, in the University, if established, should "be named and perpetually be known and distinguished by the appellation of McGill College." Owing to persistent opposition by the leaders of one section of the people to any system of governmental education and to the refusal by the Legislature to make the grants of land and money which had been promised, the proposed establishment of the provincial university by the British Government was abandoned.

In so far as the McGill College was concerned, however, the Royal Institution at once took action by applying for a Royal Charter. Such a charter was granted in 1821, and the Royal Institution prepared to take possession of the estate. owing to protracted litigation, this was not surrendered to them till 1829. Commencing then the work of teaching with two faculties, Arts and Medicine, the record of the first thirty years of the University's existence is an unbroken tale of financial embarrassment and administrative difficulties. The charter was cumbrous and unwieldy, and unsuited to a small college in the circumstances of this country, and the University, with the exception of its medical faculty, became almost extinct. But after thirty years the citizens of Montreal awoke to the value of the institution which was struggling in their midst. Several gentlemen undertook the responsibility of its renovation, and, in 1852, an amended charter was secured. Governor-General of Canada for the time being, Sir Edmund Head, became interested in its fortunes, and in 1855, with the advent of a new Principal, an era of progress and prosperity began.

# Constitution of the University.

By the amended Charter "the Governors, Principal, and Fellows" of the University are constituted a body politic and corporate, with all the usual rights and privileges of corporate bodies. The supreme authority, however, is vested in the Crown, and is exercised by His Excellency the Governor-General of Canada, for the time being, as Visitor. This is a special and important feature of the constitution, for, while it gives the University an imperial character and removes it at once from any merely local or party influence, it secures the patronage of the head of the political system of the country.

The Governors of the University are the members of the Royal Institution for the Advancement of Learning, above mentioned, and in them are vested the management of finances, the passing of University statutes and ordinances, the appointment of professors, and other important duties. Their number is limited to fifteen, and vacancies are filled by the nomination of the remaining members, with the approval of the Visitor. The President of the Board of Governors is, *cx-officio*, Chancellor of the University.

The Principal is the academic head and chief administrative officer. He is appointed by the Board of Governors, and is, cx-officio, Vice-Chancellor of the University.

The Fellows are limited to 43 in number, and are selected with reference to the representation of all the faculties and departments of the University, and of the graduates, affiliated colleges, and other bodies.

The Governors, Principal and Fellows, together constitute the Corporation, the highest academical body. Its powers are fixed by statute, and include the framing of all regulations touching courses of study, matriculation and graduation, and the granting of degrees.

The Principal, the Deans of the several Faculties, the Professors and Associate Professors, and other members, not exceeding ten in number, of the teaching staff, constitute the Academic Board of the University, with the duty of considering such matters as pertain to the interests of the University as a whole, and of making recommendations concerning the same.

The Statutes and Regulations of the University have been framed on the most liberal principles, with the view of affording to all classes of persons the greatest possible facilities for the attainment of mental culture and professional training.

### Faculties and Courses.

The educational work of the University is carried on in McGill College, the Royal Victoria College for Women, and other University buildings in Montreal, as well as in affiliated colleges elsewhere.

There are four Faculties, as follows:-

The Faculty of Arts.—The undergraduate courses of study extend over four sessions of seven and a half months each. In the third and fourth years extensive options are provided, and certain exemptions also are allowed to professional students. The courses of study lead to the degrees of B.A., M.A., B.Sc., M.Sc., D.Sc., and D.Litt. The degree of B.A. from this University admits the holder to the study of the learned professions, without preliminary examination, in the provinces of Canada, and in Great Britain and Ireland, and elsewhere.

The undergraduate course in Arts can be taken along with the undergraduate course in Medicine or Applied Science in six years, or with the undergraduate course in Law in five years. This is effected by avoiding the duplication of courses in the same subjects or in those which give the same educational training, and by a proper adaptation of the time tables. Alternatively, a certificate of Literate in Arts is given along with the degree in Medicine, Applied Science, or Law, to candidates who have completed two years in Arts before entering the professional Faculty.

The curriculum in Arts provides for the education of women, mainly in separate classes, with courses of study, exemptions, degrees and honours identical with those for men.

For outline of new course in Arts for the Diploma of Commerce, see page 141.

The Faculty of Applied Science.—The undergraduate courses of study extend over four sessions averaging, with

summer sessions, about eight months each, and provide a thorough professional training in Architecture, Chemistry, Civil Engineering, Electrical Engineering, Mechanical Engineering, Metallurgy, Mming Engineering and Transportation. The courses of study lead to the degrees of B.Arch., B.Sc., M.Sc., and D.Sc. The undergraduate course in Arts can be taken along with the undergraduate course in Applied Science in six years.

The Faculty of Law.—The undergraduate course extends over three sessions of eight months each, and leads to the degrees of B.C.L., and D.C.L. The undergraduate course in Arts can be taken along with the undergraduate course in Law in five years.

The Faculty of Medicine.—The undergraduate course of study extends over four sessions of nine months each, and leads to the degree of M.D., C.M., and, in the Department of Dentistry, to the degrees of M.D. S. and D.D.S. The undergraduate course in Arts can be taken along with the undergraduate course in Medicine in six years.

### Conservatorium of Music.

Thorough instruction in all branches of music is given in the Conservatorium of Music recently established in connection with the University. The courses followed are those prescribed for the different examinations of the Associated Board of the Royal Academy of Music and the Royal College of Music of London, England, in conjunction with which body the University now carries on throughout Canada the examinations in Music hitherto conducted by the Associated Board alone. Under this arrangement, the University is responsible for the proper and effective conduct of the examinations, and successful candidates are entitled to receive certificates bearing the imprimatur of the University as well as that of the Associated Board.

These examinations (five in number) are of graduated diffieulty, and embrace rudiments of music, harmony and grammar of music, counterpoint, pianoforte, organ, violin, harp, wind instruments, singing, etc. There is also an examination for individual teaching certificates and title of Licentiate of the Associated Board.

The examinations in practical subjects will be held during May and those in theory in the early part of the same month.

Full details of the requirements for each examination, fees, etc., are published in a separate syllabus, which can be obtained (free), together with specimen theory papers (price ten cents) and full information, on application to the Secretary of the Conservatorium of Music, 799 Sherbrooke St., Montreal.

For information as to the higher courses leading to degrees in Music, which it is proposed to institute in connection with the Conservatorium, application should be made to the Registrar of the University.

### Affiliated Colleges.

Students of affiliated colleges are matriculated in the University, and may pursue their course of study in the affiliated college, or in part in the affiliated college, and in part in McGill College, as the case may be, and may come up to the University examinations on the same terms as the students of McGill College.

A certificate of "Literate in Arts" will be given to students of affiliated colleges in the Provinces of British Columbia, Alberta and Saskatchewan, who have completed two years study in one of these colleges, as undergraduates of McGill University, and have passed the prescribed examinations.

- The Stanstead Wesleyan College, Stanstead, P. Q., is affiliated in so far as regards the work of the first two years in Arts. Detailed information may be obtained from the Rev. C. R. Flanders, B.A., D.D., Principal.
- Vancouver College, Vancouver, B.C., is also affiliated up to the end of the second year in Arts. Detailed information may be obtained from J. C. Shaw, MA., Principal
- Victoria College, Victoria, B.C., is affiliated in so far as regards the work of the first year in Arts. Detailed information may be obtained from Edward B. Paul, M.A., Principal

# Affiliated Theological Colleges.

Students of the following affiliated theological colleges may attend the courses of study in Arts, either as undergraduates or partial students, with such facilities in regard to exemptions as may be agreed on:—

- The Congregational College of Canada, Montreal.—Principal, Rev. E. M. Hill, D.D., 58 McTavish St.
- The Diocesan College of Montreal,—Principal, Rev. E. I. Rexford, M.A., LL.D., 201 University St.
- The Presbyterian College, Montreal, in connection with the Presbyterian Church in Canada. Principal, Rev. John Scrimger, M.A., D.D., 69 McTavish St.
- The Wesleyan College of Montreal,—Principal, Rev. W. I. Shaw, D.D., LL.D., 228 University St.

Calendars of each of the above Colleges and all necessary information may be obtained on application to the Principals.

### McGill Normal School.

The McGill Normal School provides the training requisite for Protestant teachers of elementary and model schools and academies in the province of Quebec. Teachers trained in this school are encouraged by the offer of bursaries (see page 31) to enter the classes in the Faculty of Arts for academy diplomas and for the degree of B.A. Copies of the School announcement may be obtained from the Principal, S. P. Robins, LL.D., 32 Belmont St., Montreal. See also page 281.

Graduates of the McGill Normal School who are actually engaged in teaching may attend classes in Arts as partial students under a special arrangement as to fees and hours of lectures. (For fees see page 51.)

# Affiliated High Schools.

Schools in which candidates are prepared for matriculation are reckoned as affiliated schools in that sense.

The following schools prepared successful candidates for matriculation in June, 1905:

Abingdon School, Montreal; All Hallows' School, Yale, B.C.; Ashbury College, Ottawa; Bishop's College School, Lennoxville, Que.; Boys' High School, Quebec; Buckingham Model School; Chilliwack High School, B.C.; Coaticook High School; Cookshire Academy; Cowansville Academy; Crichton School, Montreal; Crofton House, Vancouver, B.C.; Danville Academy; Dunham Ladies College; Gananoque High School; Girls' High School, Quebec; Granby High School; Harrison College, Barbados, B.W.I.; Huntingdon Academy; Inverness Academy; Knowlton Academy; Lachute Academy; Montreal High Schools; Mount St. Louis Institute, Montreal; Ontario Ladies College, Whitby, Ont.; Ormstown Academy; Ottawa Collegiate Institute; Owen Sound Collegiate Institute; Pointe aux Trembles Schools; Rossland High School, B.C.; Rothesay Collegiate School, N.B.; St. Francis College Grammar School, Richmond, Que.; St. John the Evangelist's School, Montreal; Sawyerville Model School; Sherbrooke High School; Stanstead College School; Miss Symmers and Miss Smith's School, Montreal; Trafalgar Institute, Montreal; Trinity College School, Port Hope, Ont.; Upper Canada College, Toronto, Ont.; Vancouver College School, B.C.; Victoria College School, B.C.; Waterloo Academy; Western Canada College, Calgary, Alta.; Westmount Academy.

### Affiliation to Other Universities.

The University is affiliated to the universities of Oxford, Cambridge and Dublin, under conditions which allow an undergraduate who has taken two years' work, and has passed the second year sessional examination in Arts, to pursue his studies and take his degree at any of those universities on a reduced period of residence.

### The Session.

The University Year or Session is divided into two terms, the first extending to the Christmas vacation, and the second from the expiry of the Christmas vacation to the date appointed for the meeting of Convocation for the conferring of degrees.

The Session 1906-1907 will commence in the Faculty of Law on Tuesday, September 11th, 1906, and in all other Faculties on Wednesday, September 19th, 1906, and will end in the Faculties of Arts, Applied Science and Law on Tuesday, April 30th, 1907, and in the Faculty of Medicine, on Wednesday, June 12th, 1907.

Two matriculation examinations (for entrance to all Faculties) will be held in 1906, the first commencing on Tuesday, June 12th, and the second on Monday, September 10th.

Second Year Exhibition. Third Year Scholarship and Supplemental Examinations in Arts will begin on Monday, September 10th, 1906. (For time table, see first part of Calendar.)

Field work in Surveying will commence on Monday, August 20th, 1906, and the summer school in Mining will be held at the end of the session.

The annual University Lecture will be delivered on Monday, October 8th, 1906.

Summer Classes. During the months of May and June, a series of Summer Classes will be conducted, intended mainly, in the first instance, to meet the requirements of students in the first two years of their course. The subjects offered in the Faculty of Arts are English, Latin, Greek, Mathematics, Physics, Chemistry, Logic, French, German and elementary Animal Biology. A fee of eight dollars will be exigible for any one class and of four dollars for each additional class, except in the case of Chemistry for which the fee (including Laboratory work) shall be twenty-five dollars. Classes will also be conducted in the following subjects of the First Year in the Faculty of Applied Science, if a sufficient number of students apply: Descriptive Geometry, Freehand Drawing, Lettering, Mathematics, Physics, Shopwork. The fee for Mathematics is eight dollars for one division of the subject and four dollars for each additional part. The fees for the other subjects are as follows: - Physics, eight dollars, Descriptive Geometry, Freehand Drawing and Lettering, twenty-five dollars and Chemistry (with laboratory work) twenty-five dollars.

During July, 1906. French Holiday courses will be conducted under the direction of Dr. H. Walter, Professor of Modern Languages, from whom all information may be obtained.

A Summer School for the training of Librarians will be held during the month of June, 1900. Full information may be obtained from Mr. C. H. Gould, B.A., University Librarian.

### Board and Residence.

No residential accommodation for men students has as yet been provided in connection with the College. Women students may board and reside either in private houses or in the Royal Victoria College, which provides, in addition to separate lecture rooms, residential accommodation for the women students of the University. (For cost of board and residence in the Royal Victoria College, see page 279.)

Good board and lodgings can be obtained in the vicinity of 'the University buildings at a cost of from \$18 per month upwards; or, separately, board at \$12 to \$18 per month, rooms at \$5 to \$12 per month.

A list of suitable boarding and lodging houses, the sanitary conditions of which are required to be properly certified, is prepared annually, and may be obtained on application to the University Registrar.

The erection of University residential halls for men is contemplated in the near future.

In the "McGill Union," which will be opened at the commencement of the next session, and which will contain a large dining hall and other catering accommodation, students can be supplied with meals and board at reasonable rates.

A description of this building (which has been erected by Sir William C. Macdonald as a place of relaxation and social intercourse for the students of the various Faculties) will be found on page 254.

Dormitory accomodation for about 60 students is provided in Strathcona Hall, the new McGill Y.M.C.A building, which has just been erected by a committee of the Association. A detailed description of the building will be found on pagé 255. Full particulars concerning terms of residence, etc., may be obtained from the Secretary of the Association, 844 Sherbrooke St., Montreal, who will also make arrangements to have students who are strangers to the City met on arrival and helped to secure lodgings, if due notice is sent of the station and time at which they will arrive.

## Classification of Students.

Except under special circumstances, no student under the age of sixteen is admitted to the first year courses in Arts, Applied Science or Medicine, or under the age of seventeen to the second year, and no student under the age of seventeen is admitted to the course in Law.

Students are classified as Post-Graduate Students, Undergraduates, Conditioned Students and Partial Students.

Post-Graduate Students are graduates who are taking a course of study leading to a higher degree.

Undergraduates are matriculated students who are pursuing a full undergraduate course of study leading to a degree.

In order to obtain undergraduate standing, a candidate must have passed the matriculation examination of the University or some other examination accepted in lieu thereof (see page 15), and have registered as a matriculated undergraduate.

Conditioned Students are those who, not having completed their matriculation examination, are pursuing a full undergraduate course of study leading to a degree, and are entitled to obtain undergraduate standing on completing their matriculation. (See Reg. 7, page 14.)

Partial Students are those who, not belonging to one of the above classes of students, are pursuing a course of study in the University. Except as provided below, such students may, subject to the approval of the Professor, attend any class without previous examination.

Persons who wish to take a partial course in the first year of the Faculty of Arts must, if under the age of eighteen years, first present to the Dean certificates of having taken a satisfactory course of school instruction. In order to obtain admission to the classes in French, intending students must have passed the University matriculation examination, or an equivalent examination, in that subject.

Partial students who subsequently obtain undergraduate standing by passing the matriculation examination may, as undergraduates, be exempted, at the discretion of the Faculty, from any particular course or courses of lectures which they may have attended as partial students and in which they have passed the sessional examinations.

Partial students who intend to proceed to a degree will be expected to employ the greater part of their time in qualifying themselves to pass the matriculation examination. The classes provided for the instruction of conditioned students in matriculation subjects will be available also for partial students who are so qualifying.

The several Faculties shall discourage partial students who are qualifying for matriculation, from attempting more work, than they are able to undertake, consistently with the requirements of the matriculation examination.

The Secretary of the Matriculation Board shall, after the September examination, send to the Dean of each Faculty a report of the standing of those candidates who have failed in the matriculation examination, for the guidance of the Faculties in connection with the admission of partial students to the first year.

Women are admitted to the courses in Arts on identical terms with men, but mainly in separate classes.

All students are required to attend lectures at the University buildings in Montreal, or at one of the affiliated colleges.

## MATRICULATION.

All matters regarding matriculation are under the control of a Matriculation Board, which is constituted as follows:

- (a) The Heads of all Departments which may include matriculation subjects, ex officio.
- (b) The Deans of the several Faculties and the Registrar of the Faculty of Medicine.
- (c) Such other members of the teaching staff (or others), as may be appointed annually by Corporation, the Faculty of Arts being given the power, in any emergency, to make an appointment, pro tempore.

## I. Regulations.

I. Matriculation examinations (for entrance into all Faculties) are held only in June and September—in June at McGill college and (on application) at local centres; in September, at McGill College and affiliated colleges (Vancouver, B.C., Victoria, B.C., and Stanstead, P.Q.) only.

All inquiries relating to the examination should be addressed to the Registrar of the University.

For the convenience of candidates in Great Britain, who are not otherwise qualified for entrance, an examination will be held regularly in London each year, commencing about the middle of June. Full information regarding exact place of examination and dates, fee, etc., may be obtained from J., Stuart Horner, Esq., care of Messrs. John Birch & Co., 3 London Wall Buildings, London, E.C., who has kindly undertaken to act as the Honorary Representative of the University in England.

2. Every Candidate for examination is required to fill up an application form and return the same with the necessary fee one month before the examination. Blank forms may be obtained from the Registrar.

3. In order to obtain an examination at a local centre, any Headmaster or other person must before May 1st, submit to the Registrar the name of some suitable person, preferably a university graduate, who is willing to act as deputy examiner, i.e., receive the questions, hold the examinations and forward the answers to Montreal. The University will be responsible for no other local expenses than the payment of the deputy-examiners.

4. The matriculation examination may be taken in two parts, the Preliminary Division comprising (1) English Composition and Dictation, (2) English Grammar, (3) History and Geography, and (4) Arithmetic, and a candidate who passes on any three of the four papers set in this Division, at one time,\* will be allowed to count, to his credit the subjects covered thereby, provided he passes on the remaining paper when he presents himself for examination in the Final Division. Those who fail on two or more papers will be required to take this part of the examination over again.

5. Candidates for examination in the Final Division who fail in not more than two subjects at one time \* may complete matriculation by passing in the subject or subjects in which they failed, at any matriculation examination held within the same or the following year.

6. The examination may also be taken as a whole (without reference to Divisions), in which case those who have obtained pass standing in at least half of the required subjects for entrance to any Faculty, at one time,\* may complete the matriculation examination by passing in the remaining subject or subjects at any examination held within the same or the following year.

7. Candidates who at the September examination fail in a small part only of the whole examination may, if their general standing is sufficiently high, be allowed to enter the first year as Conditioned Students. Those who are conditioned in a language must attend a special tutorial class during their first

<sup>\*</sup> Subjects passed at the June and September examinations of the same year will be considered as having been passed "at one time." Candidates, therefore, who have failed at the June examination and present themselves in the following September will not be required to take the subjects in which they passed in June.

session, for which a fee of \$10 is exigible. Any student, so conditioned, who fails to attend this class with regularity, will not be allowed to present himself for examination. The standing of a conditioned student will not as a rule be granted to any who have not presented themselves for examination in September, nor to those who have not shown sufficient knowledge of the subject or subjects in which they failed to justify the examiners in making a favorable recommendation. Conditioned students can obtain full undergraduate standing by passing at a subsequent June or September matriculation examination in the subject or subjects in which they failed, and will not be permitted to enter the second year of their course of study until they have satisfied all matriculation requirements.

- 8. When two or more books or subjects are prescribed for one examination it is necessary to pass in each.
- 9. A candidate in order to pass must obtain at least 40 per cent. of the total number of marks allowed for each subject.
- 10. In view of the precautions taken to prevent mistakes, no request for the re-examination of a paper shall be granted except on payment of a fee of one dollar. Should the appeal from the examiner's valuation be sustained the fee will be returned.
- II. Certificates of having passed the following examinations will, if submitted to the Registrar, be accepted pro tanto in lieu of the matriculation examination, i.e., in so far as the subjects and standard are, to the satisfaction of the Matriculation Board, the same as or equivalent to those required for the matriculation examination of this University. Candidates offering certificates which are not a full equivalent will be required to pass the matriculation examination in such of the required subjects as are not covered thereby:—

# Province of Quebec.

The University School Preliminary Examination and the Departmental Examination of Grade I Academy.

The University School Leaving Examination.

The Examination for the Model School Diploma of the Mc-Gill Normal School, under certain conditions.

Province of Ontario.

The Junior and Senior Teachers' Certificate Examinations. Junior and Senior Matriculation Examinations.

Province of New Brunswick.

The Examinations for Superior and Grammar School Licenses.

Province of Nova Scotia.

The Leaving Examinations, Grades XI and XII.

Province of Prince Edward Island.

The Leaving Examination of Prince of Wales College.

The Examination for First Class Teachers' Licence.

Province of British Columbia.

The Junior, Intermediate and Senior Grade Examinations.

Newfoundland.

The Intermediate and Associate Grade Examinations.

Great Britain.

The Local Examinations of the leading universities, and the Leaving Examinations of the Scotch Education Department.

Applications for exemptions from the matriculation examination, based upon certificates of having passed examinations other than those above mentioned, will be considered as occasion may require by the Matriculation Board. Every such application must be accompanied by certificates and full particulars, and should be addressed to the Registrar.

II. Fees.

See page 49.

III. Subjects of Examination.

FACULTY OF ARTS.

PRELIMINARY DIVISION.

(See Regulation 4, page 14.)

English Composition and Dictation. English Grammar.

History and Geography.

Arithmetic.

## FINAL DIVISION.

For candidates intending to take the B.A. Course: -

- 1. English Literature.
- 2. Latin or Greek.
- 3. One of the following:
  Greek or Latin (the one not already chosen), French, German.
- 4. Algebra, Part I.
- 5. Geometry, Part I.
- 6. One of the following:

Physiography, Botany, Chemistry, Physics, a Language not already chosen.

For candidates intending to take the B.Sc. Course in Arts:-

- 1. English Literature.
- 2. French.
- 3. German.
- 4. Algebra, Part I.
- 5. Geometry, Part I.
- 6. One of the following:

Physiography, Botany, Chemistry, Physics, Latin, Greek.

The matriculation requirements for the new course in Arts for the Diploma of Commerce are stated on page 141.

Candidates who intend ultimately to proceed to the study of Medicine are reminded that for Medical Registration it is necessary to take Latin.

Holders of Model School diplomas of the McGill Normal School who are certified by the Principal of the Normal School to have taken 75 per cent. of the total marks at their final examinations, with not less than 50 per cent. of the marks in (1) Mathematics, (2) French, and (3) Latin or Greek, respectively, will be admitted without further examination as undergraduates of the first year in Arts.

Regulations regarding the new scheme for awarding First Year Exhibitions in Arts, to go into effect in June, 1907, will be found on pages 28 to 31.

#### FACULTY OF APPLIED SCIENCE.

PRELIMINARY DIVISION.
(See Regulation 4, page 14.)

English Composition and Dictation.

English Grammar.

History and Geography.

Arithmetic.

#### FINAL DIVISION.

For all courses leading to the degree of B.Sc., in Applied Science.

- 1. English Literature.
- 2. One of the following: French, German, Latin, Greek.
- 3. Algebra, Parts I. and II.
- 4. Geometry, Parts I. and II.
- 5. Trigonometry.
- 6. One of the following:
  Physiography, Botany, Chemistry, Physics, a Language not already
  chosen

For the course leading to the degree of B.Arch.

- 1. English Literature.
- 2. French.
- 3. One of the following:
  Greek, Latin, German, Physiography, Botany, Chemistry, Physics.
- 4. Algebra, Part I.
- 5. Geometry, Part I.
- 6. Freehand and Geometrical Drawing.

French-speaking candidates for matriculation in this Faculty will be allowed to take examinations in French equivalent to those required in English. (For particulars, see p. 23.)

#### FACULTY OF MEDICINE.

#### PRELIMINARY DIVISION.

(See Regulation 4, page 14.)

English Composition and Dictation. English Grammar. History and Geography. Arithmetic.

#### FINAL DIVISION.

- 1. English Literature.
- 2. Latin.
- 3. Algebra, Part I.
- 4. Geometry, Part I.
- 5. Chemistry.
- 6. Physics.
- 7. One of the following: Greek, French, German.

In addition to the certificates mentioned on page 15, the following are accepted in lieu of the Matriculation Examination for entrance in Medicine, provided they cover Latin:—

The degree of Bachelor of Arts obtained from any recognized university.

A certificate of having passed the examination of a Provincial Medical Council.

In the case of candidates from the United States, a certificate of having passed a State or University examination fully equivalent to the matriculation examination required for entrance in this University.

The examination requirements for those who intend to practise medicine in any of the Provinces of Canada will be learned by corresponding with the Registrars of the several Provincial Medical Councils (for names and addresses, see page 220). These requirements are also given in the Calendar of the Faculty of Medicine.

## FACULTY OF LAW.

#### PRELIMINARY DIVISION.

(See Regulation 4, page 14.)

English Composition and Dictation.
English Grammar.
History and Geography.
Arithmetic.

#### FINAL DIVISION.

- 1. English Literature.
- 2. Latin.
- 3. French.
- 4. Algebra, Part 1.
- 5. Geometry, Part I.
- 6. One of the following:
  Physiography, Botany, Chemistry, Physics, Greek, German.

Candidates must reach a high standard in Latin and French.

In addition to those who qualify in whole or in part on certificates mentioned on page 45. Bachelors of Arts, Science, or Letters of any Canadian or British University (see R.S.Q., 3503a) are admitted without examination.

At and after the commencement of the session 1906-07, no candidate domiciled in the Province of Quebec shall be admitted as an undergraduate in the Faculty of Law who shall not, in addition to other matriculation requirements, possess an adequate knowledge of French. Every candidate for admission as an undergraduate, whether exempt from the matriculation examination or not, shall be specially examined in this subject by an examiner appointed by Corporation, on the recommendation of the Matriculation Board, before being allowed to enter, and shall not be considered to possess an adequate knowledge unless he can speak the language with fair fluency and can translate with ease a passage of English into French.

Candidates who intend to practise law or to be admitted to the notarial profession in the Province of Quebec are referred to the statutory requirements as shown on pages 215 to 218, under Faculty of Law. If they are not graduates they should pass the examination for admission to study required by the Council of the Bar or by the Board of Notaries, as the case may be, before seeking to matriculate. In that case they will be matriculated without examination.

# IV. Requirements in each Subject.

#### PRELIMINARY DIVISION.

## English Composition and Dictation.

For Composition.—Candidates will write a short essay on a subject to be given at the time of the examination.

## English Grammar.

Main facts in connection with the history of the language; Etymology and Syntax. A good knowledge of Parsing and Analysis is essential. West's English Grammar for Beginners is recommended as a text-book.

History and Geography.

Candidates will be required to show a somewhat intimate acquaintance with the history of England, from 1485 to the present time. While any text-book written for the upper forms of schools may be used in preparation for the examination, Gardiner's Outline of English History (Longmans) is recommended.

The Geography required will be that relating to the History prescribed.

#### Arithmetic.

All the ordinary rules, including Square Root, and a know-ledge of the Metric System.

#### FINAL DIVISION.

English Composition and Literature.

Composition.—As in Sykes's Elementary Composition, with an essay on some subject connected with the works prescribed in Literature. Frequent practice in composition is essential.

Literature.

1906.—Shakespere's Merchant of Venice; Selections from Tennyson, Part I. (Rowe & Webb, Macmillan), or Nineteenth Century Prose (ed. Cunliffe), pages 1-126, with notes (Copp. Clark Co.).

1907 and 1908. — Any two of the following: — Shake-spere's Merchant of Venice; Nineteenth Century Prose (ed. Cunliffe), pp. 1-126, with notes (Copp, Clark Co.); Poems of the Romantic Revival (Copp, Clark Co.), pages 1 to 82 with notes.

An alternative paper will be set on the work specified in English for the Junior Matriculation examination of the Province of Ontario.

#### Greek.

Grammar, Composition and Translation at Sight. — The composition will consist of sentences and easy narrative based upon the prescribed texts.

Texts.—(translation and grammatical study):—
1906, 1907 and 1908.—Xenophon, Anabasis I (as in White's First Greek Book), or Xenophon, Anabasis II.

Alternative questions will be set on the work prescribed in Greek for the Junior Matriculation examination of the Province of Ontario, where this differs from that specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

#### Latin.

Grammar, Composition and Translation at Sight. — The composition will consist of sentences and easy narrative based upon the prescribed texts.

Texts.—(translation and grammatical study):—
1906, 1907 and 1908.—Cornelius Nepos, Lives of Themistocles and Aristides (Wilkinson, in Macmillan's Elementary Classics); Cæsar, De Bello Gallico, Bks. IV and V; Ovid, Stories from the Metamorphoses (as in Gleason's "A Term of Ovid," pages 54 to the end, American Book Company).

An alternative paper will be set on the Latin texts prescribed for the Junior Matriculation examination of the Province of Ontario, where these differ from those specified above.

At the September examination other texts in Latin equivalent to those specified may be accepted, if application be made to the Registrar at least a month before the day of the examination.

## French.

Grammar. — Accidence and Syntax, including translation into French of simple English sentences to test the candidate's familiarity with elementary grammar. No candidate will be allowed to pass who fails in this part of the examination. Books recommended:—Bertenshaw's French Grammar (Longmans), and Cameron's Elements of French Prose Composition (Holt & Co.).

Translation at Sight from French into English. Translation into French of easy English passages.

French-speaking candidates for matriculation in the Faculty of Applied Science will, if they offer French in place of English (see p. 18), be examined in the following:—

French Composition, Dictation, Grammar (Larousse, Grammaire Supérieure).

French Literature: — (Corneille, Le Cid; Racine, Andromaque.)

French History:—(A. Ramband, Histoire de la Civilisation Française.)

For special regulation re matriculation in Law, see page 20.

#### German.

Grammar.—A thorough knowledge of German Accidence and of the more important rules of Syntax.

Translation. — Candidates must be able to translate into German exercises approximately equal in difficulty to those contained in the Joynes-Meissner German Grammar (First Part, and Lessons 46, 47, 57, 58, 59 and 60, of the Third Part), or in the corresponding chapters of Van der Smissen's High School German Grammar.

Texts.—(translation and grammatical study):—
1906, 1907 and 1908.—Auf der Sonnenseite (Heath & Co.);
Storm, Immensee (Heath & Co.).

The Ontario Junior Matriculation requirements in German will be accepted in place of the texts specified above.

At the September examination other texts equivalent to those specified may be accepted, if application be made to the Registrar at least one month before the date of the examination.

## Algebra, Part I.

Elementary rules, Involution, Evolution, Fractions, Indices. Surds, Simple and Quadratic Equations of one or more unknown quantities; as in Hall and Knight's Elementary Algebra to end of Surds (omitting portions marked with an asterisk). or as in similar text-books.

Algebra, Part II.

The three Progressions, Ratio, Proportion, Variation, Permutations and Combinations, Binomial Theorem, Logarithms, Theory of Quadratic Equations; as in the Hall and Knight's Elementary Algebra (omitting chaps. 40 to 43 inclusive), or as in similar text-books.

Geometry, Part I.

Euclid's Elements, Books I, II, III, with easy deductions; or an equivalent.

An alternative paper will be set on the Ontario Junior Matriculation requirements in this subject.

Geometry, Part II.

Euclid's Elements, Books IV and VI, with definitions of Book V, and easy deductions; or an equivalent.

Trigonometry.

Measurement of angles, trigonometrical ratios or functions of one angle, of two angles and of a multiple angle; as in Lock's Elementary Trigonometry, Chaps. I to XII, Hall and Knight's Trigonometry, Chaps. I to IV and VII to XII, all inclusive; or as in similar text-books.

Physiography.

The elements of the science, as in Davis's Elementary Physical Geography, Tarr's First Book of Physical Geography, or other text-books covering the same ground.

Botany.

As in Groom's Elementary Botany.

Candidates will be given extra credit for plant collections of a maximum of 25 species each. They will use Penhallow's Guide to the Collection of Plants and Blanks for Plant Descriptions.

The collections will be returned, if desired, at the expense of the school or individuals to whom they belong.

Any plant of the same family may be substituted for any one of those specified in Part II of Groom's Elementary Botany, according to the requirements of the locality.

Chemistry.

Elementary Inorganic Chemistry, comprising the preparation and properties of the chief non-metallic elements and their more important compounds, the laws of chemical action, combining weight, etc. The ground is simply and effectively covered by Remsen's "Elements of Chemistry," pp. 1 to 165 (Macmillan's Edition).

Physics.

Properties of matter; elementary mechanics of solids and fluids, including the laws of motion, simple machines, work, energy; fluid pressure and specific gravity; thermometry, the effects and modes of transmission of heat.

Text-book recommended — Gage's Introduction to Physical Science, 1902 edition (Ginn & Co.), Chaps. I to IV inclusive).

V. Dates of the Examinations.

The examinations in 1906 will commence on Tuesday, June 12th, and on Monday, September 10th. Special arrangements may be made for the examination of candidates who are prevented by severe illness or domestic affliction from presenting themselves on the dates fixed.

For September Time Table, see first part of Calendar.

## Admission to Second Year.

Admission to the second year is open, as a rule, only to undergraduates who have passed the first year sessional examination in regular course, but in exceptional cases, to be dealt with by the Faculty in which they desire to register, candidates may be admitted directly to the second year without having passed through the curriculum of the first year.

# Students of other Universities Applying for Equivalent Standing.

Any student of another university wishing to be admitted to this University with equivalent standing, is requested to send with his application:—

Ist.—A calendar of the University in which he has studied, giving a full statement of the courses of study.

2nd.—A complete statement of the course he has followed. 3rd.—A certificate of the standing gained, and of conduct. These will be submitted to the Faculty in which he desires

to register.

The Faculty, if otherwise satisfied, will decide what examination, if any, or what conditions may be necessary before admitting the candidate.

# EXHIBITIONS AND SCHOLARSHIPS.

#### SCHOLARSHIPS.—GENERAL.

1. The Rhodes Scholarships. — A Rhodes Scholar will be elected by McGill University in 1908 and again in 1911.

This scholarship is of the annual value of £300 sterling and is tenable at the University of Oxford for three years. The Scholar must be a British subject, must be over 19 and under 25 years of age and must have reached at least the end of his sophomore or second year in the University.

Rhodes Scholarships have been awarded as follows:—1904, Herbert J. Rose, B.A., and John G. Archibald, B.A.; 1905, Talbot M. Papineau, B.A.; 1906, Alexander R. McLeod, B.A.

2. Science Scholarships granted by Her Majesty's Commissioners for the Exhibition of 1851.—These scholarships of the value of £150 sterling a year are tenable for two, or, in rare instances, three years. They are limited, according to the Report of the Commission, "to those branches of Science such as Physics, Mechanics and Chemistry, the extension of which is specially important for our national industries." Their object is not to facilitate ordinary collegiate studies, but "to enable students to continue the prosecution of science with the view of aiding in its advance or in its application to the industries of the country."

It is open to students of not less than three years' standing who have shown evidence of capacity for original research, and is tenable at any university or at any other institution approved by the Commission.

A nomination to one of these Scholarships may be granted to McGill University in 1907, in which event applications should be sent in to the Registrar on or before March 1st.

This Scholarship has been awarded as follows:-

Evans, P. N., 1891; Macphail, J. A., 1893; King, R. O., 1895; Gill, J. L. W., 1897; McLean, W. B., 1899; McClung, R. K., 1901; Cooke, H. Lester, 1903; Johnson, F. M. G., 1905.

3. The Dr. T. Sterry Hunt Research Scholarship in Chemistry.—It is proposed to offer this scholarship each year to graduate students in the Faculties of Arts and Applied Science.

#### EXHIBITIONS AND SCHOLARSHIPS IN ARTS.

#### GENERAL REGULATIONS.

I. No student can hold more than one exhibition or scholarship at the same time.

2. Exhibitions and scholarships will not necessarily be awarded to the candidates who have obtained the highest marks. An adequate standard of merit will be required.

3. If in any college year there be not a sufficient number of candidates showing adequate merit, any one or more of the exhibitions or scholarships offered for competition may be given to more deserving candidates in another year.

4. A successful candidate must, in order to retain his scholarship or exhibition, proceed regularly with his college course to the satisfaction of the Faculty.

5. The annual income of the scholarships or exhibitions will be paid in four instalments, viz.:—In October, December, February and April, about the 20th day of each month.

## EXHIBITIONS AVAILABLE IN ARTS.

The Jane Redpath Exhibition, founded by Mrs. Redpath, of Terrace Bank, Montreal:—value, about \$90 yearly, open to both men and women.

Two Sir William Dawson Exhibitions, given by the New York Graduates' Society:—value, one \$62, and the other \$60 yearly. (The latter of these will be awarded in the Faculty of Applied Science in the Session 1906-1907.)

Ten Macdonald Scholarships and Exhibitions, founded by Sir W. C. Macdonald, Montreal:—value \$125 to \$150 each, yearly.

The Charles Alexander Scholarship (for men students), founded by Charles Alexander, Esq., Montreal, for the eucouragement of the study of Classics and other subjects:—value \$90 yearly.

The Major H. Mills Scholarship, founded by bequest of the late Major Hiram Mills:—value \$100 yearly.

The Barbara Scott Scholarship, founded by the late Miss Barbara Scott, Montreal, for the encouragement of the study of the Classical languages and literature:— value \$100 to \$120 yearly.

The Mackenzie Scholarship for Economics and Political Science, founded in memory of the late Hon. Alexander Mackenzie:—value \$150 yearly.

### FIRST YEAR EXHIBITIONS.

The following Exhibitions and Scholarships \* will be offered for competition in June, 1907, to candidates † for admission to the first year:—

## (I) Matriculation Exhibitions.

Five for the B.A. Course and two for the B.Sc. Course, in Arts, open to both men and women, of the value of \$100 each; and two, open to women only and conditional on residence in the Royal Victoria College, one of \$200 and one of \$100.

• These exhibitions will be awarded for general proficiency on the results of the matriculation examination, in the subjects of the Final Division.

For the Matriculation Exhibitions the value attached to each subject is as follows:—

Language subjects	100 Marks.
Mathematical subjects	100 "
English	75 "
Science subjects	50 "

# (2) Advanced Exhibitions.

Five exhibitions of the value of \$150 each, and three scholarships, tenable for two years, of the value of \$150 each per year.

<sup>\*</sup> A Scholarship is ordinarily tenable for two years; an Exhibition for one year.

<sup>†</sup> All Exhibitions and Scholarships are open to men and women on equal terms, "except in eases where the deeds of gift or the ascertained wishes of the donor expressly preclude such a course; it being understood that in the event of the establishment of any large number of Exhibitions and Scholarships specially appropriated to either of the sexes by the terms of the foundation, the Board of Governors may again restrict some of those now existing in favour of the other sex."

These exhibitions and scholarships will be awarded on the result of an examination on any three of the following subjects; provided, however, that no award will be made to a candidate who has not obtained first-class standing at the University matriculation examination or at an examination which is accepted as its equivalent: English, Latin, Greek, French, German, Mathematics.

The scholarships shall be awarded to the three candidates (otherwise qualified) who take the highest standing in the examination, and the tenure of the scholarship for the second year ishall be contingent on the holder obtaining a first-class standing in the sessional examinations of the first year, or, in the case of those who obtain first-class in an Advanced Course, a standing of not lower than second class in any subject.

One or more additional Advanced Exhibitions may be awarded in case the number of candidates who attain a sufficiently high standard for Scholarships is less than three.

Every candidate for a First Year Exhibition or Scholarship shall, on application for examination, sign a declaration to the effect that he intends to proceed to a degree in Arts in this University. Blank forms of application, to be obtained from the Registrar, must be filled out and returned before the first of May preceding the examination.

The subjects for the Advanced Exhibitions are of equal value.

# Details of the Requirements in each subject.

The details, for 1907 and 1908, of the work in the subjects for Advanced Exhibitions (any three of which may be chosen, as stated above) are as follows:—

English.

Grammar.—An advanced knowledge of this subject will be required, and, in addition, some acquaintance with the historical development of English as illustrated in common and important words. The candidate is recommended to read Mason's or West's Elements of English Grammar, and expected to supplement Mason or West by using Morris's Historical Outlines of English Accidence (Macmillan & Co.) as a book of reference.

Literature, 1907 and 1908.—Poems of the Romantic Revival (Copp, Clark Co.), pp. 83-200, with Introduction and Notes; Macaulay, Essays on Byron, Warren Hastings, Clive.

Composition.—The candidate will be required to write an essay on some subject connected with the examination.

#### Latin.

Grammar; Translation at Sight; Prose Composition.

Translation from and questions on the following texts:—
1907. — Virgil, Aeneid, Book II; Cicero, in Catilinam, J. and II.

1908.—Horace, Odes, Book I; Livy, Book II, chaps. I to 33. Candidates will have the option of taking an additional paper in Composition and Translation at Sight instead of that on the prescribed texts.

#### Greek.

Grammar; Translation at Sight; Prose Composition.

Translation from and questions on the following texts:—1907.—Homer, Iliad VI, and Lucian, Charon.

1908.—Homer, Odyssey IX; Thucydides I, chaps. 89 to 118. Candidates who do not offer the books prescribed above will have the option of taking an additional paper in Composition and Translation at Sight.

#### French.

(a) Grammar, including Syntax; (b) Translation at sight of French into English; (c) Translation at sight of easy English prose passages into French; (d) Translation from the following texts:—

1907 and 1908.—Augier, Le Gendre de M. Poirier (Heath & Co.); DeVigny, La Canne de Jonc (Heath & Co.); Sand, La Mare au Diable (Ginn & Co.).

#### German.

(a) Grammar.—Accidence and Syntax; (b) Translation at sight from German into English; (c) Translation at sight into German of an easy passage of English prose; (d) Translation and grammatical study of the following texts:—

1907 and 1908.—Fouqué, Undine (Holt); Chamisso, Peter Schlemill (Holt); Keller, Kleider machen Leute (Heath).

#### Mathematics.

Geometry.—Euclid's Elements, Books IV and VI, with definitions of Book V, and easy deductions.

Algebra.—The three Progressions, Ratio, Proportion, Variation, Permutations and Combinations, Binomial Theorem, Logarithms, Theory of Quadratic Equations, as in Hall & Knight's Elementary Algebra (omitting Chapters 40-43 inclusive), or as in similar text-books.

Trigonometry. — Measurement of angles, trigonometrical ratios or functions of one angle, of two angles and of a multiple angle, as in Lock's Elementary Trigonometry, Chapters I-XII; Hall & Knight's Trigonometry, Chaps. I to IV and VII to XII, all inclusive; or as in similar text-books.

In addition to the above first year exhibitions, three bursaries, of the value of \$60 each, are offered annually in the Faculty of Arts to the three teachers-in-training of the McGill Normal School (1) who have satisfied the requirements for entrance to this Faculty, and (2) who, of all those applying for these bursaries, stand highest in their final examination for the Model School Diploma.

#### SECOND YEAR EXHIBITIONS.\*

Six Exhibitions, ranging in value from \$100 to \$150 each, will be offered for competition to students entering the second year, in September, 1906:—

The subjects of examination are divided into two groups as follows:—

Group I.—Greek, Latin, French, German, English.

Group II.—Mathematics, Physics.

Candidates are required to offer two major subjects and one minor subject. The two major subjects must be selected from the same group, the minor subject from either group, the examination in the major subject being more extensive than that

<sup>\*</sup> Second Year Exhibitions are open to students who have passed the first year sessional examinations, provided that not more than two sessions have elapsed since their matriculation; and also to eandidates for entrance into the second year. The second year exhibition examination will, for candidates who have not previously entered the University, be regarded as a matriculation examination, fro tent.

in the same subject presented as a minor subject. Two Exhibitions of \$150 each and two of \$100 each are offered to candidates taking their major subjects from Group I, and one Exhibition of \$150 and one of \$100 to candidates taking their major subjects from Group II.

The above Exhibitions are open to all undergraduates in Arts, whether they are taking the B.A. or the B.Sc. course.

Every Candidate is required to notify the Registrar, before the 1st of July, of his intention to proceed to the examination. Forms of notification may be obtained on application.

# Requirements in each Subject.

Greek.

# (As a Major Subject.)

For 1906 and 1907:--

- I. (a) Lucian, Menippus and Timon (Mackie, Pitt Press).
  - (b) Cebetis Tabula (Jerram, Clarendon Press).
  - (c) Euripides, Heraclidæ (Jerram, Clarendon Press).
- II. Composition and Translation at Sight.
- III. History:—Morey's "Outlines of Greek History with a Survey of Ancient Oriental Nations" (American Book Company).

(As a Minor Subject).

The same as above, omitting I c. and III.

Latin.

# (As a Major Subject).

For 1906 and 1907:—

- I. (a) Virgil, Eclogues, omitting II and III (Sidgwick, Pitt Press).
  - (b) Tacitus, Agricola (Pearce, Bell).
- (c) Ovid, Metamorphoses XIII, lines 1 to 729 (Simmons, Macmillan).

II. Composition and Translation at Sight.

III. Roman History:—From the First Punic War to the death of Sulla.

(As a Minor Subject).

The same as above, omitting I c and III.

#### French.

## (As a Major Subject).

(a) Grammar; (b) translation at sight of an English passage into French; (c) French Composition on a prescribed subject; (d) a critical study of the following texts, tested by questions in the French language to be answered in French:—

For 1906.—Corneille, Cinna (Holt); Molière, Les Femmes Savantes (Heath); Daudet, Le Petit Chose (Heath); Renan, Souvenirs d'Enfance et de Jeunesse (Heath).

For 1907 and 1908.—Corneille, Cinna (Holt); Molière, Le Malade Imaginaire (Macmillan); Daudet, Tartarin de Tarascon (American Book Co.); Thiers, Expédition de Bonaparte en Egypte (Holt); Ohnet, La Fille du Député (Holt).

(As a Minor Subject for 1906.)

The same as above, omitting Corneille, Cinna.

(As a Minor Subject for 1907 and 1908.)

The same as above, omitting Cinna and Tartarin de Tarascon.

#### German.

## (As a Major Subject.)

(a) Grammar; (b) translation at sight from German into English, and from English into German; (c) the lives of Lessing and Schiller and a critical study of the following texts:—

For 1906.—Lessing, Minna von Barnhelm (Ginn); Schiller, Die Piccolomini (Pitt Press); Dahn, Der Kampf um Rom (Heath).

For 1907 and 1908.—Schiller, Die Piccolomini (Pitt Press) and Der Geisterseher (Heath); Kleist, Michael Kohlhaas (Holt); Fulda, Talisman (Heath).

(As a Minor Subject for 1906.)

The same as above, omitting Schiller, Die Piccolomini.

(As a Minor Subject for 1907 and 1908.)

The same as above, omitting Die Piccolomini and Der Geisterseher.

## English.

(As a Major Subject.)

Literature.—Shakspere, Julius Cæsar (ed. Deighton, Macmillan); Milton, Comus (ed. Bell, Macmillan); Johnson, Lives of Dryden and Pope (ed. Milnes, Clarendon Press Series).

History.—Church, Middle Ages.

(As a Minor Subject.)

The same as above, omitting Comus and Lives of Dryden and Pope.

#### Mathematics.

(As a Major Subject.)

Plane Geometry.—Ordinary and advanced section courses of the first year.

Algebra.—Selected course from Chaps. I-XXXII of Hall and Knight's Higher Algebra.

Theory of Equations.—Selected course from Burnside and Panton.

Plane Trigonometry. — As in the ordinary and advanced courses of the first year.

(As a Minor Subject.)

The Mathematics of the first year ordinary course.

Physics.

As in Carliart and Chute.

#### THIRD YEAR SCHOLARSHIPS \*

The following seven Scholarships, of the annual value of \$150 each, will be open for competition to students entering the third year in September, 1906:—

One for English and another language.

One for Latin or Greek and another language † (English excepted).

One for French or German and another language + (English excepted).

Two for Mathematics and Physics.

One for Chemistry and Physics.‡

One in Economics.

Every Candidate is required to notify the Registrar before the 1st of July of his intention to proceed to the examination. Forms of notification may be obtained on application.

In the event of no candidate of sufficient merit presenting himself, the scholarship assigned to any group of subjects may, at the discretion of the Faculty, be awarded in another group, whether a scholarship has been already assigned to that group or not.

Of the two Third Year Scholarships assigned to Mathematics and Physics, one is open to women only, the other to men only. Should, however, no candidate be eligible for the scholarship open to men only, it may be awarded to a woman.

<sup>\*</sup> Third Year Scholarships are open to students who have passed the second year sessional examination, provided that not more than three sessions have clapsed since their matriculation; and also to candidates who have obtained what the Faculty may deem equivalent standing in some other un'versity, provided that application be made before the end of the session preceding the examination. Double course students (Arts and Applied Science or Arts and Medicine) are not cligible for these Scholarships.

† The language not chosen in the first instance may be taken as the second

ianguage. ‡ In September, 1907, this Scholarship will be awarded for Biology and Psychology.

In the award of Third Year Scholarships, the second year standing of candidates, in the subjects selected, will be taken into account.

Mackenzie Scholarship. — The holder of the scholarship in Economics is required to proceed with the work of the Honour Course in Economics and History, course B (see page 77).

# Requirements in each Subject.

#### Greek.

Prose Composition; Translation at Sight; questions on Greek Language, Literature and History.

#### Latin.

Prose Composition; Translation at Sight; questions on Latin Language and Literature and Roman History.

## English and History.

Literature. Shakspere, Tempest, ed. Deighton (Macmillan); Milton, Paradise Lost, Books I and II, ed. Macmillan (Macmillan); Burke, On Conciliation with America (ed. Cook, Longmans); Arnold, Essays in Criticism, Second Series (Macmillan's Colonial Library). History.—Robinson, Introduction to the History of Western Europe (Ginn & Co.). Composition.—The candidate will be required to write an essay on some subject connected with the literature or history prescribed. High marks will be given for this subject.

#### Hebrew.

The prophet Amos: introduction, translation and commentary; translation of English into Hebrew; paradigms of Hebrew verbs.

#### French.

(a) Composition; (b) translation at sight from French into English; (c) questions on the subject matter of the following texts, the lives of their authors and the periods they represent:—

For 1906.—Molière, Tartuffe (Heath); Racine, Iphigénie (Am. Book Co.); V. Hugo, Notre-Dame de Paris (Ginn); Musset, Selections (Ginn).

For 1907 and 1908. — Molière, Le Médecin malgré lui (Heath); Racine, Phèdre (Heath); Hugo, Quatre-vingt-treize (Ginn) and Les Misérables (Heath); Taine, Introduction à l'Histoire de la Littérature Anglaise (Heath); Rostand, Cyrano de Bergerac (Holt).

The entire examination will be held in the French language.

#### German.

(a) Composition; (b) translation at sight from German into English; (c) questions on the subject matter of the following texts, the lives of their authors and the periods they represent:—

For 1906. — Lessing, Emilia Galotti (Holt); Goethe, Dichtung und Wahrheit (Heath); Schiller, Gustav Adolf in Deutschland (Am. Book Co.); Immermann, Der Oberhof (Pitt Press).

For 1907 and 1908. — Goethe, Diehtung und Wahrheit (Heath); Schiller, Das Lied von der Glocke (Holt) and Wallenstein's Lager (Holt); Eichendorff, Aus dem Leben eines Taugenichts (Holt): Heine, Prose Selections (Macmillan); Immermann, Der Oberhof (Pitt Press).

## Mathematics and Physics.

## Mathematics.

Differential and Integral Calculus. — Lamb's Infinitesimal Calculus.

Analytic Geometry.—C. Smith's Conic Sections.

Higher Trigonometry.—Lock's Higher Trigonometry.

Spherical Trigonometry.—McLellan and Preston, Spherical Trigonometry, Part I.

Algebra. — Determinants as in Burnside and Panton's Theory of Equations.

# Physics.

Electricity and Magnetism.—S. P. Thompson.

## Chemistry and Physics.

Chemistry. — Reading.—Mendeléef's Principles of Chemistry. Essay.—The industrial applications of the Silicates.

Physics.—Carbart and Chute.

#### Economics.

Chisholm, Handbook of Commercial Geography; Hatfield, Lectures on Commerce; Dunbar, Theory and History of Banking; Schloss, Methods of Industrial Remuneration; Drage, Trade Unions.

## EXHIBITIONS AND PRIZES IN APPLIED SCIENCE.

- 1. Awarded on result of special Examinations
- 1. A British Association Exhibition of \$50.00 and prize of \$25.00, to students entering the fourth year, the subjects of examination being the Mathematics and Theory of Structures of the ordinary course.
- 2. Three prizes of \$25.00, \$15.00 and \$10.00, to students entering the third year, the subject of examination being the Mathematics of the second year.
- 3. A Scott Exhibition of \$50.00, founded by the Calédonian Society of Montreal, in commemoration of the Centenary of Sir Walter Scott, and two prizes of \$25.00 and \$15.00, to students entering the second year, the subjects of examination being:—
- (a) English Literature (summer vacation work); (b) Mathematics of the first year; (c) Descriptive Geometry of the first year.
- 4 Two prizes, each of \$10.00, presented by J. M. McCarthy, Esq., B.A.Sc., to students entering the third year, for proficiency in Levelling and Transit Work.
- 5. The Province of Quebec Association of Architects offers a scholarship covering the fees of a full course in Architecture, to be open for competition to students from the Province of Quebec. Particulars may be obtained from the Assistant Secretary of the Association, 112 Mansfield Street, Montreal.

Students are required to notify the Dean of their intention to compete for any of the above, at least one week before the commencement of the examination.

One of the Sir Wm. Dawson Exhibitions given by the New York Graduates' Society will be awarded in 1906 to the candidate who passes the best entrance examination in Applied Science.

- 2. Awarded on results of Sessional Examinations or for special theses.
- 1. The sum of \$150, presented by W. A. Carlyle, Esq., Ma.E., may be awarded in prizes to students of the Mining Course taking the highest positions in the degree examinations of 1907.
- 2. The Allis-Chalmers Company of Chicago offer several scholarships for excellence in work in the Mining Department. Particulars regarding these scholarships can be obtained from the Professor of Mining.

3. A scholarship of the value of \$75.00 has been offered by Mr. Andrew T. Taylor, F.R.I.B.A., to be competed for by second year undergraduates in the Architectural course.

The basis of the award will be the average of marks obtained in all examinations and the drawings, architectural, constructional and freehand, done throughout the session, the progress of the student as well as his proficiency being taken into account.

The award will be made in May, 1907, (but unless a good standard of work is obtained, the scholarship will lapse till the next year) and the money will be paid over during the course of the following session.

- 4. Workshop Prize.—A prize of \$20.00, presented by Mr. C. J. Fleet, B.A., B.C.L., for bench and lathe work in the woodworking department, open to students of not more than two terms' standing in workshop practice.
- 5. A prize of \$50.00, presented by Mr. James Tighe, B.A.Sc., for research work in Hydraulies.
- 6. An exhibition offered to graduates by Mr. A. E. Childs, M.Sc., for a special research on "The flow of gas through pipes under pressure."
- 7. Summer Work. (See page 148.) The following prizes are offered for the best summer theses:—

To the students of the Civil Engineering Course, a prize of \$25, presented by E. B. Greenshields, Esq., B.A.

To the students of the Electrical Engineering Course, & prize of \$25.

To the students of the Mechanical Engineering Course, a prize of \$25 presented by the Crosby Steam Gauge & Valve Co.

To the students of the Mining Engineering Course, a prize of \$25 presented by Geo. E. Drummond, Esq.

Four prizes, each of the value of \$25, are offered for competition to student members of the Canadian Society of Civil Engineers, for the best papers on subjects in any department of engineering. The summer theses prepared by students of this University are available for this competition.

For other prizes given in Applied Science, see under Medals and Prizes, page 44.

# MEDALS, CERTIFICATES, PRIZES AND HONOURS.

#### I. IN ARTS.

1. Gold Medals will be awarded in the B.A. Honour examinations to students who take the highest honours of the First Rank in the subjects stated below, and who shall have passed creditably the ordinary examinations for the Degree of B.A., provided they have been recommended therefor to the Corporation by the Faculty on the report of the examiners:—

The Henry Chapman Gold Medal for Classical Languages and Literature.

The Prince of Wales Gold Medal for Mental and Moral Philosophy.

The Anne Molson Gold Medal for Mathematics and Natural Philosophy.

The Shakspere Gold Medal for the English Language and Literature.

The Logan Gold Medal for Geology, Mineralogy and Palæontology.

The Major Hiram Mills Gold Medal for Biology.

The Governor-General's Gold Medal for Modern Languages and Literature.

The regulations for the Governor-General's Gold Medal are as follows:—

(1) The subjects for competition shall be the French and German languages and literature.

(2) The course of study shall extend over two years, viz., the third and fourth years.

(3) The successful candidate must be capable of speaking and

writing both languages correctly.

(4) There shall be examinations in the subjects of the course in both the third and fourth years, at which Honours may be awarded to deserving candidates.

(5) The general conditions of competition and the privileges as regards exemptions shall be the same as for the other Gold Medals in the Faculty of Arts.

- (6) Students from other Faculties shall be allowed to compete, provided they pass the examinations of the third and fourth years in the above subjects.
- (7) Candidates desiring to enter the third year of the course, who have not obtained First-Class Standing at the sessional examinations of the second year in Arts, are required to pass an examination in the work of the first two years of the course in Modern Languages, if called on to do so by the professors.
- (8) The subjects of examination shall be those of the Honour Course in Modern Languages.

In addition to the above, certain medals are offered annually by the Alliance Française, at the discretion of the Department of Modern Languages.

If there be no candidate for any medal, or if none of the candidates fulfil the required conditions, the medal will be withheld, and the proceeds of its endowment for the year may be devoted to prizes in the subject for which it was intended.

For details of the work prescribed for the several Honour courses, see under "Courses of Lectures," pages 87 et seqq., and also pages 76 to 79.

- 2. Special Certificates will be given to those candidates for B.A. who have been placed in the First Class at the ordinary B.A. examination; have obtained three-fourths of the maximum marks in the aggregate of the courses proper to the third and fourth years, are in the First Class in not less than half of these courses, and have no Third Class. At this examination, no candidate who has taken exemptions (see pages 82 to 87) can be placed in the First Class unless he has obtained First Class in the examination in four of the subjects offered (each corresponding to a full course of lectures), and has no Third Class.
- 3. Certificates of High General Standing will be granted to those undergraduates of the first two years who have obtained three-fourths of the maximum marks in the aggregate of the studies proper to their year, are placed in the First Class in not less than half the subjects, and have not more than one Third Class.

- 4. Prizes or Certificates will be given to those undergraduates who have distinguished themselves in the studies of a particular class, and have attended all the other classes proper to their year.
- 5. Graduates who attend lectures in any subject, and pass the corresponding examination therein, may obtain certificates of their standing, whether the course in question be Ordinary or Honour.
- 6. The Neil Stewart Prize. An annual prize of \$15 is open to all undergraduates and graduates of this University, and also to graduates of any other university, who are students of Theology in some college affiliated to this University. The rules which govern the award of this prize are as follows:—
- (1) The candidate must pass, in the First Class, a through examination upon the following subjects: Hebrew Grammar; reading and translation at sight from the Pentateuch, and from such poetic portions of the Scriptures as may be determined.
- (2) There will be two examinations of three hours each—one in Grammar and the other in Translation and Analysis.
- (Course for the present year: Hebrew Grammar (Gesenius, Translation and Analysis of Exodus; Isaiah XL., to the end of the book.)
- (3) In case competitors should fail to attain the above standard, the prize will be withheld, and a prize of \$30 will be offered in the following year for the same.

This Prize, founded by the late Rev. C. C. Stewart, M.A., and terminated by his death, was re-established by the liberality of the late Neil Stewart, Esq., of Vankleek Hill.

- 7. Early English Text Society's Prize. This prize, the annual gift of the Early English Text Society, will be awarded for proficiency in the subjects of the language group in the English Honour curriculum of the third and fourth years.
- 8. New Shakspere Society's Prize. This prize, the annual gift of the New Shakspere Society, open to graduates and undergraduates, will be awarded for a critical knowledge of the following plays of Shakspere:—Hamlet, Macbeth, Othello, King Lear.

- 9. Charles G. Coster Memorial Prize. This prize, intended as a tribute to the memory of the late Rev. Chas. G. Coster, M.A., Ph.D., Principal of the Grammar School, St. John, N.B., is offered by Mr. Colin H. Livingstone, B.A, to undergraduates (men or women) from the Maritime Provinces (Nova Scotia, New Brunswick and Prince Edward Island) In April, 1907, it will be awarded to that undergraduate of the first, second or third year, from the above Provinces, who, in the opinion of the Faculty, has passed the most satisfactory sessional examinations, as stipulated by the donor.
- 5425, subscribed by the pupils and friends of the late Miss Annie M. McIntosh, will be offered as a prize to students of the Royal Victoria College in such subject, or for such work, as the Faculty may determine.
- 11. The names of those who have taken Honours, Certificates or Prizes will be published in order of merit, with mention, in the case of students of the first and second years, of the schools in which their preliminary education has been received.

## II. IN APPLIED SCIENCE.

- 1. The Governor General's silver medal (the gift of His Excellency The Right Honourable Earl Grey) will be awarded for graduate research work.
- 2. A British Association medal and prize in books are open for competition to students of the graduating class in each of the eight courses, and, if the examiners so recommend, will be awarded to the student taking the highest position in the final examinations.

The British Association Medals and Exhibition were founded by the British Association for the Advancement of Science, in commemoration of the meeting held in Montreal in the year 1884.

3. A gold medal and two prizes of \$35 and \$15, offered by the Canadian Mining Institute, will be open for competition to students from McGill University, Toronto University and Queen's University, and will be awarded to the students presenting the best papers on some subjects connected with mining, ore dressing, metallurgy, or economic geology. Preference will be given to those theses which show decided originality.

- 4. Prizes or Certificates of Merit are given to such students as take the highest place in the sessional and degree examinations. Partial students are not eligible for prizes.
  - 5. Honours.—On graduation, Honours will be awarded for advanced work in professional subjects.

#### III. IN LAW.

- 1. The Elizabeth Torrance Gold Medal is awarded to the student who obtains the highest marks in the Final Examinations, provided that his answers are, in the estimation of the Faculty, of sufficient merit to entitle him to this distinction.
- 2. Various money prizes are awarded to the students of each year who obtain the highest distinction at the examinations held at the close of the session.

No prize will, however, be awarded to any student unless a sufficiently high standing is attained.

#### IV. IN MEDICINE.

I. The "Holmes Gold Medal," founded by the Medical Faculty in the year 1865, as a memorial of the late Andrew Holmes, Esq., M.D., LL.D., late Dean of the Faculty of Medicine, is awarded to the student of the graduating class who receives the highest aggregate number of marks in the different branches comprised in the medical curriculum.

The student who gains the Holmes' Medal has the option of exchanging it for a bronze medal and the money equivalent of the Gold Medal.

2. "The Sutherland Gold Medal," founded in 1878 by the late Mrs. Sutherland in memory of her late husband, William Sutherland, M.D., formerly Professor of Chemistry in this Faculty, is awarded for the best examination in general and medical Chemistry, together with creditable examination in the Primary branches. The examination is held at the end of the third year.

- 3. The Final Prize.—A prize in books (or a microscope of equivalent value) awarded for the best examination, written and oral, in the Final branches. The Holmes' medallist is not permitted to compete for this prize.
- 4. The Third Year Prize.—A prize in books awarded for the best examination, written and oral, in the branches of the third year.
- 5. The Second Year Prize.—A prize in books for the best examination in all the branches of the second year course.
- 6. The First Year Prize.—A prize in books for the best examination in all the branches of the first year course.
- 7. The "Clemesha" Prize in Clinical Therapeutics, founded in 1889 by John W. Clemesha, M.D., of Port Hope, Ont. This prize is awarded to the student making the highest marks in a special clinical examination.

## REGISTRATION.

- I. Candidates entering the University, whether as undergraduates, conditioned students or partial students, are required to attend at the office of the University Registrar some time during the week preceding the opening day of the session, for the purpose of filling out in duplicate the usual form of registration, and of signing the following declaration in the Matricula or Register:—
- "I hereby declare that I will faithfully observe the Statutes, Rules and Ordinances of this University of McGill College."
- 2. On the opening day of the session, or on one of the three preceding days, all students who have not registered under Regulation I, shall register in such place or places as may be announced by circular and by notices posted in the several buildings.
- 3. After registering, the student will be given a registration ticket, on presentation of which to the different professors and lectures whose classes he proposes to attend, his name will be entered on the class register. It will not be entered, nor will he be permitted to attend lectures on any other condition.

In the case of students whose standing cannot be determined at the time of registration, special tickets will be issued, which will give them the right of admission to classes until such time as their status is ascertained.

4. On the opening of the Second Term, or on one of the three preceding days, all undergraduates and conditioned students in the Faculties of Arts and Applied Science shall register in such place or places as may be announced by notice posted in the several buildings.

5. Undergraduates and conditioned students who fail to register at the times specified above for each term shall be required to pay a special registration fee, which fee shall not be remitted in any case except by the Registrar, under instructions from a joint standing committee of the Faculties of Arts and Applied Science. This fee shall be \$3.00 when the student registers within 24 hours after the time appointed, and shall be \$6.00 when the student registers more than 24 hours and less than 72 hours thereafter. A student who has not registered before the expiration of the 72 hours above mentioned, will not be permitted to register or receive credit for attendance at lectures without permission of the above named committee, which shall also have power to decide the amount of the registration fee in such special cases.

## FEES.

#### GENERAL REGULATIONS.

- I. Fees shall be paid to the Bursar on or before October 1st. The registration ticket must be shown to the Bursar, in every case, before the fee is paid. After October 1st an additional fee of \$2.00 will be exacted of all students in default.
- 2. Immediately after October 10th the Bursar shall send to each professor and lecturer a list of the registered students who have not paid their fees, on receipt of which the professor or lecturer shall strike their names from the register of attendance, and such students cannot be re-admitted to their classes except on presentation of a special ticket, signed by the Bursar, certifying to the payment of fees.

Students registering after October 10th shall pay their fees at the time of registration, failing which they become subject to the provisions of Regulation 2.

#### MATRICULATION FEES.

For the first examination *	\$5.00
(For examination at a local centre where not more	
than two candidates are writing the fee will be	
determined by the Registrar, provided however,	
that it shall in no case exceed \$12 for each can-	
didate.)	
For a subsequent examination in one or two sub-	
jects	2.00
For a subsequent examination in three or more	
subjects	3.00
For examination of certificates, in respect of which	
candidates are exempted from the whole of the	
matriculation examination	1.00
For entrance into the second year	10.00

<sup>\*</sup> In the case of candidates who qualify on certificates, or by other examinations in all but three subjects, or parts of subjects, the fee will be \$3.00.

Candidates writing on matriculation papers with the view of qualifying as partial students in the Faculty of Arts, shall pay a fee of \$1.00 per subject.

Matriculation fees must be sent to the University Registrar at the time of application for the examination.

Certificates will, on application, be issued to successful candidates without additional fee. Duplicate certificates will not be granted unless satisfactory proof be given of the loss or destruction of the original. The fee for a duplicate certificate is \$1.00.

#### FEES IN ARTS.

(For Regulations re payment, see page 49.)

Sessional fee for undergraduates and conditioned students. .... .... \$61.00† (This includes fees for laboratorics, library, gymnasium, athletics and graduation.)

Fees for Partial Students.—(First and Second Years.)—\$16 per session for one course and \$10 for one half-course of lectures, including the use of the Library; \$12 per session for each additional course; \$8 per session for each additional halfcourse. In addition there will be a fee of \$3 for Athletics.

Fees for Partial Students.—(Third and Fourth Years.)— \$22 per session for one course and \$13 for one half-course of lectures, including the use of the Library; \$20 per session for each additional course; \$11 per session for each additional half-course. In addition there will be a fee of \$3 for Athletics.

Partial students taking the full curriculum in any one year pay the same fees as undergraduates in that year.

Graduates in Arts of this University and graduates of other universities attending full courses in affiliated theological colleges are allowed, on payment of one-half of the usual fees,

Societies of that Faculty.

† The lectures and laboratory work, if any, in one subject in any of the four college years constitute a "course," if occupying three hours per week, a "half-course" if occupying less than three hours per week.

<sup>†</sup> At the request of the students themselves and by the authority of Corporation, an additional dollar will be exacted from all undergraduates and conditioned students (men) in the Faculty of Arts, for the support of the Literary and the Undergraduates'

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to attend all lectures, except those for which a special fee is exigible. For Bachelors of Arts proceeding to M.A. or M.Sc. (Arts), the fee for a graduate course of study is \$40 including laboratory work. For Graduation Fee, see page 55.

Fees for special courses of lectures to teachers, given after 4 p.m.

For one hour per week during the Session	 	\$ 4.00
For two hours per week	 	7.00
For three or four hours per week	 	10.00

For more than three or four hours per week regular partial student rates will be charged.

Fees for summer classes:-

For one class (Chemistry excepted)	8.00
For each additional class (Chemistry excepted)	4.00
For Chemistry, including laboratory work	25.00

## Special fees:-

Supplemental examination	in any subject or any part	
of a subject taken at	t the regular date fixed by	
· · · · · · · · · · · · · · · · · · ·		
the Faculty		2.00

Supplemental examination in any subject or any part

Suplemental examination, when granted at any other time than the regular date fixed by the Faculty. 5.00

All fees for supplemental examinations must be paid to the Bursar, and the receipts shown to the Dean before the examination.

Fee for the Degree of B.A. or B.Sc. (Arts) conferred in absentia (except when the candidate has been specially exempted by the Faculty) ............ 20.00

Caution Money. — Every student is required to deposit with the Bursar the sum of \$5, as caution money, to cover damage done to furniture, apparatus, books, etc. This amount, less deductions (if any), will be returned at the close of the session.

<sup>•</sup> Two hours a week for one term is considered as the equivalent of one hour a week for the Session.

#### FEES IN APPLIED SCIENCE.

(For Regulations re payment, see page 49.)

1.3. 1.8. 47.
Annual fee for the undergraduate course in Architecture, No. 1\$100.00
Annual fee for all other undergraduate courses 175.00
Students taking the six years' Double Course in the Facul-
ties of Arts and Applied Science shall pay full fees in the
Faculty of Arts, and the following fees in the Faculty of
Applied Science:
First year
Second, third and fourth years 175.00
No student can obtain undergraduate standing in any year
unless he has already paid the full undergraduate fee for that
year.
The fees for partial students are: — \$4.00 for Library,
\$3.00 for Athletics, and a fee at the rate of \$6.00 per annum for
each hour of instruction per week, but the maximum fee shall
in no case exceed the full undergraduate fee.
In addition to the fees specified above every student is re-
quired to pay a fee of \$1.00 for the Undergraduates' Society in
the Faculty of Applied Science, to be collected with the tuition
fees at the office of the Bursar.
Caution money deposit (for all classes of students). \$ 5.00
Fee for Post-Graduate Course 150.00
(Graduates of this Faculty will be required to pay only one-
half of this amount.)
Fee for the degree of B.Sc., conferred in absentia
(except when the candidate has been specially
exempted by the Faculty) \$20.00
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For supplemental examinations, the fee is \$2.00 for each examination period (morning or afternoon). It must be paid to the Bursar of the University not later than the day before the examinations, and receipt for the same must be shown to the Professor in charge before the examination papers are distributed.

Fee for Degree of M.Sc, see page 55.

The fee for a special supplemental examination is \$5.00. The fees for Summer classes are stated on page 9.

## FEES IN MEDICINE.

(For Regulations re payment, see page 49.)

## First Year.

Class fees	.\$125.00
Caution money (deposit)*	. 10.00
Athletics	. 3.00
	\$138.00
Second Year.	φ. 30.00
Class tees	.\$125.00
Caution money (deposit)*	. 10.00
Hospitals	
Athletics	. 3.00
	ĈO
Third Year.	\$148.00
Class fees	.\$125.00
Caution money (deposit)*	. 10.00
Hospitals	. 10.00
Maternity Hospital	. 12.00
Athletics	. 3.00
	\$160.00
Fourth Year.	T
Class fees	.\$125.00
Caution money (deposit)*	. 10.00
Hospitals	. 10.00
Athletics	3.00
Fee for Degree of M.D., C.M	30.00
	\$178.00
Class fee for students repeating a session	\$35.00
Repeating students must also pay, in addition to the	ne above,

<sup>\*</sup>The Caution money deposit is intended to cover breakages in the different laboratories, etc. The amount of the deposit, less deductions (if any), will be returned at the close of the Session.

† When the Degree is conferred in absentia an additional fee of twenty dollars will be exacted, unless the candidate has been specially exempted by the Faculty.

\$3 for Athletics and make the usual caution money deposit of \$10.

Fee for students from other colleges who have paid full fees there for courses to be taken...... \$35.00

These students are also required to pay in addition \$3 for Athletics and \$10 for Hospitals, and to make the usual caution money deposit of \$10.

Partial students will be admitted on payment of special fees.

The fee for the regular Graduate Course will vary in proportion to the number of subjects taken. A registration fee of \$5.00 will also be exacted from each person taking this Course.

Fee for the Course in Public Health, and Diploma.. \$50.00

#### FEES IN LAW.

## (For Regulations re payment, see page 49.)

Registration Fee	.\$ 5.00
undergraduate course	60.00
Athletics Fee, payable by partial students	3.00
Graduation fee	*12.50
Fees for partial students:—	
For course in Roman Law	\$20.00
For each of the following courses:—Successions,	
Criminal Law, Commercial Law, Obligations,	
Civil Procedure	15.00
For each of the shorter courses	10.00

Caution Money.—Every student is required to deposit with the Bursar the sum of \$5, as caution money, to cover damage done to furniture, loss of books, etc. This amount, less deductions (if any), will be returned at the close of the session.

<sup>\*</sup> When the Degree is conferred in absentia an additional fee of twenty dollars will be exacted unless the candidate has been specially exempted by the Faculty.

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#### FEES FOR HIGHER DEGREES.

TEES TON MOTER	DEGREDES.
For the Degree of M.A	\$20.00
" (In absen	tia) 40.00
(In case of failure on examinat	
of the thesis the candidate	may present himself
in a subsequent year withou	out further payment
of fee.)	
For the Degree of M.Sc	
	tia) 40.00
	80.00
	So.oo
	So.oo
" " LL.D. (in cours	se) So.oo
No fee shall be charged for the "honoris causa."  The fee for any Higher Degree 1 to the Registrar of the University. tial to the reception of the application quired, the fee must be paid before	must be sent with the thesis This is a condition essention. If no thesis be re-
MISCELLANEOUS	S FEES.
Elocution (optional)  Library (optional for students in In in sessional fee in the case of a Gymnasium (optional for undergound Medicine, and also for partial culties, included in sessional for others)  Certificate of standing, as to year Certificate of standing, accompanies.	raduates in Law and l students in all Fa- fee in the case of all of Course
classification in the several sul	
411	

No certificates are given for attendance on lectures unless the corresponding examinations have been passed.

All applications for certificates must be addressed to the Registrar of the University, accompanied by the required fee

## DEGREES.

#### I. ORDINARY DEGREES.

In order to obtain the degrees of B.A., B.Sc., B.Arch., B.C.L., M.D., C.M., and M.D.S., students are required to attend lectures (for length of courses, see page 4), to complete the course of study for the degree sought, to pass all the prescribed examinations during the course and any special examinations for graduation, and to perform such other exercises as may be prescribed to that end.

#### II. HIGHER DEGREES.

All theses for higher degrees must be sent to the Registrar of the University. No thesis will be received or examination granted until the fee for the degree has been paid.

## Degree of M.A.

Bachelors of Arts of this University, of at least one year's standing, who (a) shall have taken for one year a post-graduate course of study in Arts in the University, previously submitted to and approved by the Faculty, and (b) shall have passed an examination at the end of the course, and (c) shall have presented, if required, a satisfactory thesis; or Bachelors of Arts of at least two years' standing who shall have presented a satisfactory thesis and passed a special examination, shall be entitled to the degree of Master of Arts.

For new and detailed regulations regarding the Degree of Master of Arts, see page 142.

The fee for the degree is \$20; in absentia, \$40. (In case of failure, the candidate may present himself in a subsequent year without further payment of fees.) The examination will be held in April in McGill College only.

All theses for 1906-7 must be in the hands of the Dean before March 15th, 1907.

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Candidates who obtained the degree of B.A. before 1884 may proceed to the degree of M.A. under the regulations in force previous to that year.

Lectures in all subjects of the Arts curriculum are open to Bachelors of Arts who are candidates for M.A., the sessional examinations corresponding to these lectures being reckoned as parts of the M.A. examination.

## Degree of M.Sc.

Bachelors of Arts or Bachelors of Science of at least one year's standing who (a) shall have taken for one year a post-graduate course of study in the Faculties of Arts or Applied Science of the University, previously submitted to and approved by the Faculty, (b) shall have passed an examination at the end of the year, and (c) shall, if required, have presented a satisfactory thesis; or Bachelors of Arts or Bachelors of Science of at least two years' standing who shall have presented a satisfactory thesis, and shall have passed a special examination, shall be entitled to the degree of Master of Science.

The fee for the degree is \$20; in absentia, \$40.

## Degree of D.D.S.

Masters of Dental Surgery who have either presented at any time later than one year after graduation a satisfactory thesis, embodying original research, upon some branch of dental science; or have, at the completion of three years, passed satisfactorily an examination in advanced dentistry, the scope of which shall be determined by the Faculty of Medicine, shall be entitled to the degree of Doctor in Dental Science.

## Degree of D.Litt.

Candidates for the degree of Doctor of Literature must be Masters of Arts, of at least five years' standing, who shall have distinguished themselves by special research and learning in the domain of literature or philosophy. They are required to present a satisfactory thesis or published work.

The fee for the degree is \$80.

#### Degree of D.Sc.

Candidates for the degree of Doctor of Science must be Masters of Arts, or Masters of Science, or Doctors of Medicine, of at least five years' standing, who shall have distinguished themselves by special research and learning in the domain of science. They are required to present a satisfactory thesis or published work.

The fee for the degree is \$80.

## Degree of Ph. D.

For regulations and requirements, see page 143.

## Degree of D.C.L.

Candidates for the degree of Doctor of Civil Law must be Bachelors of Civil Law of at least twelve years' standing. They are required to pass a special examination for the degree and to present a satisfactory thesis or published work on some subject selected or approved by the Faculty of Law. For details of the examination, etc., see under Faculty of Law, page 213.

The fee for the degree is \$80.

#### Degree of LL.D.

Except as hereinafter mentioned, the degree of Doctor of Laws is given only as an honorary degree.

Any person who matriculated and attended lectures in the Faculty of Arts before the 31st January, 1899, may proceed to the degree of Doctor of Laws, in course, upon the following conditions:

Candidates for the degree of LL.D., in course, must be Masters of Arts of at least twelve years' standing, and are required to prepare and submit to the Faculty of Arts, not less than three months before proceeding to the degree, twenty-five printed copies of a thesis on some literary or scientific subject which has been *previously approved by the Faculty*. The thesis must exhibit such a degree of literary or scientific merit, and give evidence of such originality of thought or extent of research as shall, in the opinion of the Faculty, justify recommendation for the degree.

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Candidates are also required to submit, with their thesis, a list of books treating of some one branch of literature or of science satisfactory to the Faculty, in which they are prepared to submit to examination, and in which they shall be examined, unless otherwise ordered by the Faculty.

The fee for the degree is \$80.

#### ADMISSION "AD EUNDEM GRADUM."

The following are the regulations applicable to admission "ad eundem gradum":—

## Extract from the Statutes, Chap. VIII.

"Graduates of other universities, desirous of admission to "the like degree in this University, may be so admitted by "the Corporation; due enquiry being first made as to their "moral character and sound learning, and opportunity given "to the several Faculties to make such representation in the "premises as they may see fit. Provided always, that, unless "by unanimous consent, such admission shall not be put to "vote until after three months' notice, and shall not be "ordered, if as many as five members of the Corporation shall "vote against it."

# Extract from the Regulations of the Corporation.

"In all cases in which anyone is proposed for any 'ad "eundem' degree, it shall be necessary for the member or "members of the Corporation making such proposal, to state "in writing therewith the grounds upon which the granting "of such degree is advocated, and when the case shall be re-"ferred to the Faculties, under Chap. VIII. of the Statutes, "copies of such proposal and grounds shall be transmitted to "the Faculties by the Registrar for their consideration."

Note. In considering applications under the above regulations, the Faculties will require as "grounds" the pursuit of a course of study or research in this University; association with the academic work of the University; or similar qualifications.

Admission "ad eundem gradum" is not granted merely as a titutar distinction.

## MISCELLANEOUS.

#### ATTENDANCE AND CONDUCT.

1. Punctual attendance on all classes is required of each student. Absence from lectures can only be excused by necessity or duty, of which proof must be given to the Faculty. The number of times of absence, which shall cause the loss of a session shall in each case be determined by the Faculty.

The following special regulations regarding attendance have been adopted by the Faculties of Arts and Applied Science:—

(a) The total number of absences in any one course shall not exceed one-eighth of the full total of complete attendances in that course. A student absenting himself on a greater number of occasions than the above will not be permitted to come up for examination in the subject of that course.

The above regulation applies to all courses of study, but it is open to the Faculty to make special regulations still further limiting the number of absences permitted in any special course or courses.

- (b) Lectures shall commence at five minutes after the hour, on the conclusion of the roll-call, and students failing to answer to their names shall be marked "absent," unless they report themselves at the close of the lecture, in which case they shall be marked "late," and given such credit for attendance as the Faculty may deem advisable. Lectures shall end at five minutes before the hour.\*
- 2. A record shall be kept by each Professor or Lecturer, in which the presence or absence of students shall be carefully noted. This record shall be submitted to the Faculty when required.

\* This regulation has been changed in the case of the Faculty of Applied Science

Lectures will commence at five minutes after the hour, on the conclusion of the roll-call. After the commencement of a lecture students are not allowed to enter except with the permission of the professor. If permitted to enter they will, on reporting themselves at the close of the lecture, be marked "late," and given such credit for attendance as the Faculty may deem advisable.

Lectures end at five minutes before the hour.

- 3. Credit for attendance on any lecture or class may be refused on the grounds of lateness, inattention, neglect of study, or disorderly conduct in the class-room or laboratory. In the case last mentioned, the student may, at the discretion of the Professor, be required to leave the room. Persistence in any of the above offences against discipline shall, after admonition by the Professor, be reported to the Dean of the Faculty concerned. The Dean may, at his discretion, reprimand the student, or refer the matter to the Faculty at its next meeting, and may in the interval suspend from classes.
- 4. Any student found guilty of dishonest or immoral practices shall be liable to expulsion from the University, or to be suspended for a term of years.
- 5. While in college, or in the college grounds, students shall conduct themselves in the same orderly manner as in the classrooms. Smoking is prohibited in the college buildings, except in such rooms, if any, as may be set apart for that purpose. Any Professor observing improper conduct on the part of a student in the college buildings or grounds may admonish him, and, if necessary, report him to the Dean of the Faculty in which he is enrolled. Without, as well as within the walls of the college, every student is required to maintain a good moral character.
- o. When students are brought before the Faculty under the above rules, the Faculty may reprimand, report to parents or gardians, impose fines (which in no case shall exceed twenty-five dollars), disqualify from competing for prizes or honours, suspend from classes, or report to the Corporation for expulsion.
- 7. Any student damaging the furniture or buildings will be required to bear the expense of repairing or making good the same, and will, in addition, be subject to such of the penalties mentioned in regulation 6 as the Faculty may see fit to inflict. If individual responsibility for damage cannot be traced, a pro rata assessment may be made on all the students more directly concerned.

8. All cases of discipline involving the interests of more than one Faculty, or of the University in general, shall be immediately reported to the Principal, or, in his absence, to the Vice-Principal.

## COLLEGE GROUNDS AND ATHLETICS.

The management of the college grounds and of out-door athletics and sports are under the control of a Committee consisting of a member of the Board of Governors, the Principal, a member of each Faculty, the medical Director of Physical Training, a graduate, the President of the Athletic Association, and an undergraduate representative from each of the affiliated clubs.

The several members of the Committee are elected annually by their respective bodies. The undergraduate members of the Committee are entitled to vote only on matters relating to athletics.

The following extracts are made from the rules and regulations of the Committee, for the guidance of members of the University and the several athletic clubs and associations which are from time to time permitted to use the grounds:

During the summer season the Sherbrooke Street gates shall be closed between 10 p.m. and 6 a.m. every day, and the University and McTavish Street gates between 6 p.m. and 7 a.m. on week days and the whole day on Sunday.

Such persons as are entitled to use the grounds shall be provided with tickets renewable each year. Those entitled to tickets are the members of the University and prominent benefactors, and the families of Governors and Professors.

The several Clubs may be permitted to issue special tickets, entitling the holders to admission to the grounds for the purpose of viewing matches, or for other special occasions of public interest.

All students desirous of taking part in football matches, or otherwise engaging in violent athletic contests, must pass a medical examination, to be held under the direction of the Medical Director of Physical Training. A complete record of all such examinations shall be kept by the Director or some other officer appointed to this duty. The man-

agers and captains of Clubs, or other responsible executive officers, are required to insist upon the strict observance of the rule in regard to medical examination, and all the rules and regulations of the Committee which concern them.

All Clubs must submit their regulations, rules, and bylaws, and any changes in the same, for the approval of the Committee. They must make application for the use of such portions of the grounds as they require, and for any special privileges.

Clubs must not engage in matches with outside clubs except with the approval of the Committee.

The Athletic Association must submit its programme for

each year for the approval of the Committee.

All students in good standing who are taking a course of study held to be sufficient will be allowed to take part in athletics, subject, however, to the regulation of the Grounds and Athletics Committee regarding medical examination.

Suspension from lectures for any cause, or absence from more than one-eighth of the total number of lectures given in any course, as shown by the monthly reports furnished to the Dean of each Faculty by the several Professors and Lecturers, shall be considered as sufficient ground to disqualify a student for engaging in athletic contests.

Partial students will be debarred from entering athletic competitions or contests unless they take courses which are considered adequate by a special committee of the Faculty in which they are enrolled.

All students of the University are required to pay a fee of three dollars (\$3.00) for the use of the grounds. (This fee is included in the sessional fee except in the case of students in medicine.) The amount so paid is handed over to the Committee, and is by it expended in the interest of college athletics and in the permanent improvement of the portions of the grounds used for athletics.

The amount derived as grounds and athletics fees from the students of the Royal Victoria College is placed at the disposal of the Committee in charge of the grounds, for expenditure in the interests of women-students.

The annual sports of the University are held on the second Friday of October in each year. The day is observed as a holiday.

#### UNIVERSITY ATHLETIC ASSOCIATION.

All matters connected with athletics at the University are under the direct supervision of this Association, which in turn is responsible to the "Grounds and Athletics Committee." The executive of the Athletic Association consists of the presidents of the various clubs of the Association, ten in number.

The Track Club has its special field in regulating and encouraging "Track and Field Athletics." The management of the Inter-class Sports and of the annual University sports is in the hands of this club. This year (1906) Freshman Sports and open handicaps will be held on September 29th, and the Annual University Sports on October 12th. The Intercollegiate meet will be held at Toronto about a week later.

The Rugby Football Club, one of the strongest of the clubs, is represented by a senior and intermediate team in the Intercollegiate Union, and a junior team in the Q.R.F.U. In addition to these championship matches, a series of inter-class matches are played annually for the "Wood Cup."

The Skating and Hockey Club has a well established reputation. As in football, a series of inter-class games are played annually, in this case for the "Capper Trophy."

The Association Football Club, the Basket-Ball Club, the Boxing Club, the Cricket Club, the Harrier's Club, the Tennis Club, the Fencing Club and the Wrestling Club are the remaining clubs of the Association. Most of them conduct interclass matches, and have a senior team, which represents the University in outside matches.

#### GYMNASIA.

## (1) The University Gymnasium.

Medical Director of Physical Training: — F. W. Harvey, B.A., M.D.

Instructor: -W. J. Jacomb.

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The classes, which are open to men students of all Faculties, will meet at the University Gymnasium at hours to suit, as far as possible, the convenience of students.

Instruction is given in boxing, wrestling, fencing, jiujitsu and swimming, for each of which a special fee is required.

Special attention is given to the application of exercise in treating cases of weakness or deformity, which should be reported to the Medical Director before the regular class work is undertaken.

The Wicksteed Silver and Bronze Medals for Physical Culture (the gift of Dr. R. J. Wicksteed) are offered for competition to students of the graduating class and to students who have had instruction in the gymnasium for two sessions; the silver medal to the former, the bronze medal to the latter.

The award of these medals is made by judges, appointed

by the Corporation of the University.

Every competitor for the silver medal is required to lodge with the judges, before the examination, a certificate of good standing in the graduating class, signed by the Dean or Registrar of the Faculty to which he belongs, and the medal will not be awarded to any student who may fail in his examination for the degree.

(2) The Royal Victoria College Gymnasium.

Instructor:—

Classes for women-students are conducted in the gymnasium of the Royal Victoria College, at hours arranged to suit the convenience of the students, all of whom are required to pass a satisfactory medical examination before engaging in basket ball, or other exercises in the gymnasium. Students of the first year are required to take regular physical exercise in the gymnasium, amounting to two periods per week.

The Strathcona prizes of \$20 and \$10 are open for competition to students of the second and fourth years, under the

following regulations:-

(1) Competitors must be able to show an attendance of 65% on the gymnastic classes throughout the session.

(2) No prize shall be awarded unless the judges consider

the work up to a standard of 75%.

(3) The prize shall be awarded if one candidate reach the required standard, even if there be no competition.

(4) The prize shall not be awarded should the winner fail in obtaining her full academic standing.

(5) A programme from which the exercises are to be chosen will be posted in the gymnasium at the beginning of each session (not later than October 15th of each year) and the actual programme of the competition will be posted not later than January 15th.

(6) Judges for these competitions shall be appointed yearly by the Corporation, on the recommendation of the Medical

Director of Physical Training.

#### ACADEMIC DRESS.

Professors, lecturers and students are required to wear academic dress at lectures, except in those cases in which a dispensation shall have been granted by the Faculty.

Undergraduates shall wear a plain black stuff gown, not falling

below the knee, with round sleeve cut above elbow.

Bachelor of Arts.—Black stuff gown, falling below knee, with full sleeve cut to elbow and terminating in a point (similar to that of the Cambridge B.A.); hood, black silk, lined with pale blue silk and edged with white fur.

Bachelor of Science.—The same gown as Bachelors of Arts; hood,

black silk, lined with yellow silk and edged with white fur.

Bachelor of Civil Law.—The same gown as Bachelors of Arts; hood,

black silk, lined with French grey silk and edged with white fur.

Master of Arts.—Black gown of stuff or silk falling below knee, with long sleeve with semi-circular cut at the bottom (similar to that of the Cambridge M.A.); hood, black silk, lined with pale blue silk.

Master of Science.—The same gown as Masters of Arts; hood,

black silk, lined with yellow silk.

Doctor of Medicine.—The same gown as Masters of Arts; hood, scarlet cloth, lined with dark blue silk.

Doctor of Laws.—The same gown as Masters of Arts; hood, scarlet cloth, lined with white silk.

Doctor of Literature.—The same gown as Masters of Arts; hood,

scarlet cloth, lined with pale blue silk.

Doctor of Science.—The same gown as Masters of Arts; hood,

scarlet cloth, lined with yellow silk.

Doctor of Civil Law.—The same gown as Masters of Arts; hood,

scarlet cloth, lined with French grey silk.

Doctors of Laws, Doctors of Civil Law, Doctors of Literature, and Doctors of Science shall be entitled to wear for full dress a robe of scarlet cloth (similar in pattern to that of the Cambridge LL.D.) faced with silk of the same colour as the lining of their respective hoods.

All hoods shall be in pattern similar to that of the Masters of Arts

of Cambridge University.

Undergraduates and graduates shall wear the ordinary black trencher with black tassel, but Doctors of Laws, Doctors of Civil Law, Doctors of Literature, and Doctors of Science shall wear for full dress a black velvet hat with gold cord, similar to that worn by Doctors of Laws of Cambridge University.

Samples of the colours of the linings of all hoods shall be kept for

inspection in the office of the Registrar.

## THE UNIVERSITY LIBRARY.

C. H. GOULD, B.A., Librarian.

The University Library is under the general management of a Committee of Corporation, consisting of the Principal, Chairman; the Librarian, Secretary; two members of the Board of Governors; one Representative Fellow, appointed by corporation; two representatives of the Faculty of Arts, elected by the Faculty; one representative of each of the Faculties of Applied Science. Law and Medicine, elected by their respective Faculties; and four other members appointed by Corporation.

The various libraries of the University now contain about 109,000 volumes, a large number of pamphlets and considerable collections of maps and of photographs.

In addition to providing for the symmetrical growth of the Library, the Committee has latterly been enabled, through generous gifts, to acquire a number of the rarer and more costly monographs and serials which are indispensable for research; there being now on the shelves nearly 300 complete fyles of periodicals and of publications of various literary and scientific societies. Many of these have been recently added through the liberality of Sir William C. Macdonald.

Among the special collections exclusive of departmental libraries, mention should be made of the Redpath Historical Collection, formed by the late Mr. Peter Redpath some years before his death. This is still being added to by Mrs. Peter Redpath, is now of great value, and affords unusual opportunities for the study of English History. The most striking feature of the collection—a series of political and religious tracts—has been greatly enlarged by Mrs. Redpath, and now comprises about 10,000 brochures, dating from 1600 to the end of the nineteenth century.

Abundant materials, bearing upon the History of Canada, have been gathered together. Of these the nucleus is formed by the entire library of the late Mr. Frederick Griffin, whose choice books were, some years ago, bequeathed to the Univer-

sity. This branch of the library is being steadily augmented, and includes, besides important manuscripts, an interesting collection of Canadian portraits and autographs.

The Medical Library, directly controlled by the Faculty of Medicine, is the largest of the departmental libraries, and is one of the most complete collections of its kind in the Dominion.

Current periodicals, with Transactions and other Society publications to the number of about 360 in the aggregate, are regularly received by the Library. The list of these serials is being extended year by year.

Members of the family of the late Mr. Hugh McLennan generously enabled the Library Committee to establish a system of travelling libraries, during the autumn of 1900, and since then have provided for the maintenance and operation of the system. The libraries are sent on application, and on payment of a nominal fee of \$3.00, to any point in Canada. Regulations and full particulars may be obtained from the Librarian of the University.

Although the library is maintained primarily for members of the University, the Corporation has provided for the admission, upon certain conditions, of such persons as may be approved by the Library Committee. It is the desire of the Committee to make the library as useful to the entire community as is consistent with the safety of the books and the general interests of the University.

#### EXTRACTS FROM THE LIBRARY REGULATIONS.

- I. During the College Session the Library is open daily (except Sundays and general public holidays), from 9 a.m. till 5 p.m.; and the Reading Room from 9 a.m. till 6 p.m., and also from 7.30 till 10.30 p.m. On Saturdays, both Library and Reading Room close at 5 p.m. During vacations, both Library and Reading Room close at 5 p.m., and on Saturdays at 1 p.m.
- 2. Students in the Faculties of Arts, Law, and Applied Science are entitled to read in the Library, and may borrow books (subject to the regulations) to the number of three volumes at one time.

- 3. Students in the Faculty of Medicine, who have paid the Library fee to the Bursar, may read in the Library, and on depositing the sum of \$5 with the Bursar, may borrow books on the same conditions as students in other Faculties. They are required to present their Matriculation Tickets to the Bursar and to the Librarian.
- 4. Graduates in any of the Faculties, on making a deposit of \$5, are entitled to the use of the Library, subject to the same rules and conditions as students in Arts, Law, or Applied Science.
- 5. Books may be taken from the Library only after they have been charged at the Delivery Desk: borrowers who cannot attend personally must sign and date an order, giving the titles of the books desired.
- 6. Books in the Reference Library must not be taken from the Reading Room; and, after they have been used, they must be returned promptly by readers to their proper places upon the shelves.
- 7. Before leaving the Library, readers must return the books they have obtained to the attendant at the Delivery Desk.
- 8. All persons using books remain responsible for them so long as the books are charged to them, and borrowers returning books must see that their receipt is properly cancelled.
- 9. Writing or making any mark upon any book belonging to the Library is unconditionally forbidden. Any person found guilty of wilfully damaging any book in any way shall be excluded from the Library; and shall be debarred from the use thereof for such time as the Library Committee may determine.
- of Library fixtures, must be made good to the satisfaction of the Librarian and of the Library Committee.

Damage, loss or injury when the responsibility cannot be traced will be made good out of the caution money deposited by students with the Bursar.

11. Should any borrower fail to return a book upon the date when its return is due, he may be notified by postal card of his default, and be requested to return the book. If the loan is not renewed, or the book returned, after a further

delay of at most three days, it may be sent for by special messenger, at the borrower's expense.

12. Before the close of the session, students in their final year must return uninjured, or replace to the satisfaction of the Librarian, all books which they have borrowed.

13. Silence must be strictly observed in the Library.

14. Infringement of any of the rules of the Library will subject the offender to a suspension of his privileges, or to such other penalty as the nature of the case may require.

#### McGILL COLLEGE BOOK CLUB.

## ESTABLISHED, A.D. 1869.

This Club is in the 37th year of its existence, and has for its two-fold object to procure an early supply of new books (novels excluded) for its members, and the increase of the Library. By this means an addition has already been made to the Library of not less than 4,000 volumes in special and general literature.

Membership in the Club is open to all, at an annual subscription of ten dollars.

Apart from the advantages to be directly derived from membership, there is the special privilege accorded to members of using the College Library on the same conditions as graduates, without being required, however, to make a deposit when books are borrowed.

The members of the Executive Committee are as follows:—Dr. Alex. Johnson; F. P. Walton, B.A., LL.B.; Mr. G. B. Cramp, K.C.; Dr. Andrew Macphail; Wm. Gardner, M.D.; Arch. McGoun, M.A., B.C.L., K.C.; and G. A. Farmer, Esq., to any of whom application for membership may be addressed, or to Mr. E. M. Renouf, Secretary, at the Club's Depository, 320 St. Catherine Street, West.

# INFORMATION FOR STUDENTS IN ARTS.

THE SESSION 1906-1907 WILL OPEN ON WEDNESDAY, SEPTEMBER 19TH, 1906. STUDENTS ENTERING THE UNIVERSITY WILL REGISTER AT THE REGISTRAR'S OFFICE ON THE 14TH, 15TH, 17TH OR 18TH; STUDENTS PREVIOUSLY ENROLLED WILL REGISTER ON THE 19TH.\*

Information on the following matters will be found by referring to the pages mentioned:—

	PAGES
Admission of partial students	ΙΙ
Attendance	60
Exhibitions and Scholarships	27
Fees	50
Matriculation	16
Medals and Prizes	41
Summer Classes	9

For Time Tables of Lectures and Examinations, see first part of Calcudar.

## REGULATIONS FOR THE DEGREE OF B.A.

After passing the matriculation examination, an undergraduate, in order to obtain the degree of B.A or B.Sc., is required to attend regularly the appointed courses of lectures for four years, and to pass the required examinations in each year. He cannot take more than the number of subjects specified for each year without the special permission of the Faculty, nor can be proceed with his course unless be passes each examination in its assigned order. In case of failure to pass any of these examinations, permission to recover standing by passing supplemental examinations must be obtained from the Faculty. The conditions under which such permission is granted are stated on pp. 81 and 82. Undergraduates are arranged in years, from first to fourth, according to their academic standing.

<sup>\*</sup> For full particular regarding registration, see page 47.

## I. ORDINARY COURSE FOR THE DEGREE OF B.A.

#### First Year.

Greek, 1, (page 89) or Latin, 1 (page 91).

English, 1A, 1B (page 96) and History, 1 (page 116).

Mathematics, 1 (page 122).

Latin, 1 (page 91), or Greek, 1 (page 89), or French, 1, 2 (page 103), or German, 2 (page 106), or Spanish. (page 108).

Physics, 1 (page 124).

French cannot be taken as a qualifying option in the first year, except by students who have passed the matriculation examination in this subject.

An additional language may be taken as an extra subject in the first two years, if application be made to, and permission obtained from the Faculty at the beginning of the session. Credit will be given for it on application.

Advanced Courses.—With a view to the encouragement of higher work, advanced courses will be provided in all subjects as far as practicable. Permission to take an advanced course is granted by the Professor.

Students taking the work of advanced courses may be excused from the work of the corresponding ordinary courses, on the recommendation of the Professor. No exemptions from other subjects will be granted to students in advanced courses.

An outline of the new Course for the Diploma of Commerce will be found on page 141.

#### Second Year.

English Composition, 2B (page 97).

Latin, 2 (page 92) or Greek 2 (page 89).

and three of the following:

Greek, 2 (page 89) or Latin 2 (page 92).

English, 2A (page 97).

French, 3, 4 (page 103).

German, 3 (page 106).

Hebrew, I (page 109).

Psychology and Logic, 1A and 1B (page 110).

Descriptive Economics, 1 (page 118) and History, 2 (page 116).

Mathematics, 2 (page 122).

Elementary Biology [Zoology, 1A (page 137) and Botany, 1 (page 134)].

Chemistry, 1 (page 128).

Physics, 2 (page 126) (only for students taking the advanced course in Mathematics).

Students intending to take the double course in Arts (B.A.) and Applied Science must take Mathematics and Chemistry; those intending to take the double course in Arts (B.A.) and Medicine must take Chemistry and Biology.

Advanced Courses will be offered in the second year as in the first.

Students taking an advanced course may be excused from the work of the corresponding ordinary courses, on the recommendation of the Professor. An exemption from one other of the three subjects specified above may be granted to students taking the advanced course in mathematics, but to no others.

## Third and Fourth Years.

The subjects of the third and fourth years are arranged in the following divisions:—

LANGUAGE AND HISTORY, PHILOSOPHY SCIENCE. LITERATURE. AND LAW. Mathematics, 3 (page English, 3A, 3B, 4A, 4B Philosophy, 2, 3, 4 or 5 123). (page 111). (page 97). Mechanics, 4 (page 127', Latin, 3 (page 92). History, 2 (page 116). and Astronomy, Economics, 2(page 118). Greek, 3 (page 80). (page 123). Political Science, 3 (page Sanskrit, 1A, 1B (page (Two half courses). 94). 110). Law Physics: Constitutio n a l Comparative Philology Sound, Light, Heat (half course), A, B (page 121). (full course), 2 (page Roman Law (page 122). (page 95). 126). French, 5 (page 104). Electricity and Magne-German, 4 (page 107). tism (full course), 3 Italian, in alternate (page 126). years. Chemistry, 2, 3, 4; 5, 6, Semitic Languages, 2, 3 or 7, 8 (page 128). (page 100). Geology, I (page 131). Zoology, 2 (page 138). Botany, 2, 3 (page 134). \*Physiology. \*Anatomy.

From the above divisions six courses are to be selected by each student in the third and fourth years, three in each year. Each will be studied in lecture courses extending over

These courses in the Faculty of Medicine are accepted as the equivalents of ordinary courses in the Faculty of Arts in the case of Double Course students in Arts and Medicine, but not otherwise.

not more than four hours per week, with collateral reading, and, in the case of the science subjects, laboratory work. One subject chosen in the third year *must* be continued by every student in his fourth year (Political Science, 3, will be accepted as a continuation of Economics, 2, and *vice versa*); two subjects *may* be continued if application to that effect be granted by the Faculty or the Advisory Committee of the Faculty. Of the whole six courses, one *must* and three *may* be chosen by all candidates from the list of subjects included under the head of Science, except when Chemistry or Biology has been selected as an option in the second year, in which case no science subject need be taken.

In addition to the six courses, a course of one hour a week in English Composition (3C, 4C) must be taken by every candidate for the ordinary B.A. in the third and fourth years, and also by Honour students in English.

Every undergraduate in the third and fourth years is required to submit to the Faculty, for approval, at the beginning of the session, a written statement of the subjects he proposes to study during the session. He will not be allowed to discontinue any of these, if approved, or begin any other, without the special permission of the Faculty.

The Advisory Committee will meet not later than October 1st in each session, and will report to the Faculty on the subjects selected by students in each of the four years.

In order to obtain an ordinary B.A. degree of the First Class, a candidate must obtain not only the required aggregate of marks (viz., three-fourths of the maximum), but also First Class standing in three of his subjects, and not less than Second Class in any subject.

For arrangements enabling students in Medicine or Applied Science to take the course in Arts also, and obtain B.A., and B.Sc. (Applied Science), or B.A. and M.D., in six years, see pp. 82 to 84; and for the course leading to the degrees of B.Sc. (Arts) and M.D. in six years, see pp. 85 and 86.

#### 2. HONOUR COURSES FOR THE DEGREE OF B.A.

Honours of First, Second, or Third Rank will be awarded to successful candidates in any Honour Course established by the Faculty, provided they have passed creditably the regular examinations in all the subjects proper to their year.

A student proposing to read for an Honour Course: -

(1) Must satisfy the Department of his qualifications to proceed with the subject or subjects in question;

(2) Must, while attending lectures, make progress satisfactory to the Department. In case his progress is not satisfactory he may be notified by the Faculty to discontinue attendance.

Students who wish to graduate with Honours in any subject are strongly recommended to take the Advanced Courses in these subjects in the first and second years, where such are provided.

A candidate for Honours must take the ordinary course in the subject in which he is reading for Honours, but where the Honour Course corresponds to two ordinary subjects, a candidate may, at the discretion of the Department, be exempted from attendance on lectures in these ordinary subjects for a number of hours not exceeding four weekly. In addition to the ordinary subject specified above, he is required to take a second ordinary subject, which may be determined by the department in which he is a candidate for Honours. The Faculty may, on the recommendation of the department, exempt any student from the obligation to take a second ordinary subject.

A student who desires to be a candidate for B.A. Honours must have taken at least Second Rank Honours in the third year. In this case he shall be required to take only one subject in his ordinary course, viz., that in which he is reading for Honours. A candidate, however, who obtains Third Rank Honours at the B.A. Examinations, will not be allowed credit at the end of the session for the exemption from other ordinary subjects, unless the examiners certify that his knowledge of the whole Honour Course is sufficient to justify it.

Honour lectures are open to all partial students who can satisfy the Professor of their fitness to proceed with the work of the course. Such students will not be ranked with undergraduates in the examination lists.

No student is allowed to attend two Honour Courses without the special permission of the Faculty.

Note.—For subjects of ordinary and Honour Courses, see pp. 87 et seqq.

The Honour Courses offered are as follows:-

#### I. CLASSICS.

Third Year:—Greek—Lecture Courses, 3, 4 (page 89).

Latin— " , 3, 4 (page 92).

Fourth Year—Greek—Lecture Courses, 3, 4 (page 89).

Latin— " , 3, 4 (page 92).

#### II. LATIN AND FRENCH.

Third Year—Latin—Lecture Courses, 3, 4 (page 92).

French (Session 1906-7) — Lecture Courses,
5, 7, 9 (page 104).

Fourth Year:—Latin—Lecture Courses, 3, 4 (page 92).

French (Session 1906-7)—Lecture Courses,
5, 7, 9 (page 104).

#### III. LATIN AND GERMAN.

Third Year:—Latin—Lecture Courses, 3, 4 (page 92).

German (Session 1906-7)—Lecture Courses,
4. 6, 8 (page 107).

Fourth Year:—Latin—Lecture Courses, 3, 4 (page 92).

German (Session 1906-7)—Lecture Courses,
4, 6, 8 (page 107).

#### IV. ENGLISH.

Third Year:—Lecture Courses, 3A, 3B, 3C, 5, 9, 10, 11 and 12 (page 97).

Fourth Year:—Lecture Courses 4A, 4B, 4C and either 6, 7, 8 or 9, 10, 11, 12, with one hour a week in language (page 98).

#### V. MODERN LANGUAGES.

Third and Fourth Years:—French—Lecture Courses, 5, 7, 9 (Session 1906-7) (page 104).

German — Lecture Courses, 4, 6, 8 (page 107).

Comparative Philology (for third year students) (page 95).

Third and Fourth Years:—French—Lecture Courses, 6, 8, 9 (Session 1907-8) (page 104).

German — Lecture Courses, 5, 7, 8 (page 107).

#### VI. SEMITIC LANGUAGES.

Third Year:—Lecture Courses, 2, and either 4a, 40 or 5a, 5b (page 109).

Fourth Year:—Lecture Courses 3, and either 4a, 4b or 5a, 5b (page 109).

## VII. MENTAL AND MORAL PHILOSOPHY.

Third Year:—Lecture Courses 5a, 5b, 7 or 8 and 9 (page 113). Fourth Year:—Lecture Courses 10, 11, 12, 13 (page 114).

#### VIII. HISTORY AND ECONOMICS.

A. (Studies chiefly in History and Politics).

Third Year:—History—Lecture Courses 2, 4, 6, 7 (page 116).

Economics and Political Science — Lecture

Courses 2, 3 (page 118).

Fourth Year:—History—Lecture Courses 4, 7, 9 (page 117).

Economics and Political Science — Lecture

Courses 5, 6 and 7 or 8 (page 120).

B. (Studies chiefly in Economics and Politics.)

Third Year:—History—Lecture Course 2 (page 116).

Economics and Political Science — Lecture

Courses 2, 3, 4 (page 118).

Fourth Year:—History—Lecture Courses 4, 7 (page 117).

Economics and Political Science — Lecture
Courses 4, 5, 7, 8 (page 119).

For History 3 (third year) and History 4 (fourth year), courses in other subjects may be substituted in cases in which the Department may judge such substitution to be advisable.

The examination of Honour students on Economics 2 and Political Science 3 will include an extra paper as well as those set to the rest of these classes.

#### IX. HISTORY AND ENGLISH.

Third Year:—History—Lecture Courses 2, 4, 6, 7 (page 116).

English—Any courses aggregating six hours a week may be chosen from the programme of the English Department for the third and fourth years (pages 97 to 101).

Fourth Year:—History—Lecture Courses 4, 6, 7, 9 (page 117).

English—Any courses aggregating six hours a week may be chosen from the programme of the English Department for the third and fourth years, so long as these courses have not already been taken by the student in his third year (pages 97 to 101).

#### X. MATHEMATICS AND PHYSICS.

Third Year:—Mathematics — Lecture Courses 7, 8, 9, 10 (page 123).

Physics — Lecture Courses 3, 4, 5 (in part) (page 126).

Fourth Year:—Mathematics — Courses selected from 11, 12, (13, 14, 15 (page 123).

Physics—Lecture Course 5 (page 127).

#### XI. CHEMISTRY.

Third Year:—Chemistry—Lecture Courses 2, 3, 4 (page 128).

(Extra reading and laboratory work.)

Physics—Lecture Course 2 (page 126).

Mathematics—Lecture Course 4 (page 123).

A half-course in Calculus or Biology, or Geology, or Mineralogy.

Fourth Year:—Chemistry—Lecture Courses 5, 6, 7, 8 or 7, 8, 9 (page 129).

Physics—Lecture Course 3 (page 126).

#### XII. GEOLOGY AND MINERALOGY.

Third Year:—Geology—Lecture Course I (page 131):

Mineralogy—Courses I and 2 (page 130).

Zoology—Lecture Course 2 (page 138).

Chemistry — Lecture Courses I or 2 and 3 (page 128).

Fourth Year:—Geology (advanced) — Lectures, Laboratory Work, Field Work, Colloquium, Reading.

Mineralogy (advanced).

Botany, one half-course, 3a (page 135).

#### XIII. BIOLOGY.

Third Year:—Botany—Lecture Course 2, a special course of reading and weekly themes (page 134).

Zoology—Lecture Courses 1B, 2 and Darwin's Origin of Species (page 138).

Geology-Lecture Course 1 (page 131).

Fourth Year:—Botany—Lecture Course 3, a special course of reading and weekly themes (page 135).

Zoology—Lecture Courses 4A and 4B (page 138) and essays on selected subjects.

## 3. HONOUR COURSES FOR SPECIALISTS IN ONTARIO.

A number of courses, leading to a degree in Honours in McGill University, and qualifying for specialists' standing in the province of Ontario, have been accepted by the Education Department of that province. Full details of these courses are given in the Calendar for 1905-6, and may also be obtained on application to the Dean of the Faculty of Arts. The provincial regulation as to specialists' standing in Ontario is as follows:—

"51. (1) Any person who obtains a degree in Arts in the honor department of Mathematics, Science, Classics, English and History, Moderns and History, or French and German, as specified in the calendar of any University in Canada and accepted by the Education Department, who has graduated with at least second class honors (or 66 per cent., in each subject of such honor department) and who has been in actual attendance in such department at a University for not less than two academic years, shall be entitled to the non-professional qualification of a specialist in such department."

Graduates of McGill University who, having taken any of these courses, have obtained the necessary standing in Honours, as stated in the foregoing regulation, will, on attending such courses and passing such examinations in subjects relating to the Art of Teaching and School Management as are prescribed by the Department of Education of the Province of Ontario, be qualified as specialists in that province. Undergraduates will not be permitted to substitute these courses for those of the regular McGill curriculum, except as a whole.

## 4. ORDINARY COURSE FOR THE DEGREE OF B.Sc. (ARTS).

The B.Sc. course in Arts has been specially arranged to give the student a thorough training in science, combined with a good knowledge of English, French, and German. A wide range of sciences may be studied, and the course differs from those offered in the Faculty of Applied Science in the substitution of modern languages for the more purely technical work of that Faculty.

A high standard of attainment will in all cases be exacted, and it is expected that in the final year the course will include instruction in the methods of modern research.

#### First Year.

English, 1A, 1B (page 96), and History, 1 (page 116). French, 1, 2 (page 103). German, 2 (page 106). Mathematics, 1 (page 122). Physics, 1 (page 124).

#### Second Year.

English, 2 (page 97).

French, 3, 4 (page 103).

German, 3 (page 106).

Chemistry, 1 (page 128)—Laboratory work in addition.

Mathematics, 2, (page 122) or Elementary Biology (pages 134 and 137).

- (a) Upon entering the second year, the student must decide upon the general character of the course which he will follow in the third and fourth years. If his course in these years is to consist chiefly of Mathematics and Physics, he must choose Mathematics; if it is to be chiefly biological or geological, he must take Biology; while if he intends to select Chemistry, he must take Mathematics if he intends to devote special attention to Physical Chemistry, but Biology if he intends to make special study of other branches of this science.
- (b) A candidate for the degree of B.Sc. must obtain at least Second Class standing both in French and German at the sessional examinations of the second year, and, upon entering the third year, must, in order to proceed with his course, be able to read with ease scientific papers in both of these languages.

- (c) The student shall, in the third year, take a full course in three of the following sciences, viz.:— Mathematics, Physics, Chemistry, Zoology, Botany, Geology. He shall take, in addition, a portion of the B.A. Honour Course in one of them, as well as a course in English Composition.
- (d) In the fourth year the student shall devote his time chiefly to advanced work in one of the three sciences which he has already studied in the third year. The course which he is to follow will be drawn up by the Professors of the science which he selects and must be approved by the B.Sc. Advisory Committee. He shall take, in addition, a course in English Composition.

#### EXAMINATIONS IN ARTS.

I. There are two examinations in each year, viz., at Christmas and at the end of the session. Successful students are arranged in three classes at the sessional examinations.

Christmas examinations will be held in all the subjects of the first and second years, and are obligatory on all undergraduates, and also on all partial students of the first year, unless they have been specially exempted. Partial students of the first year, who fail in the Christmas examination, will be requested to withdraw from the class. Twenty-five per cent. of the marks given for the sessional work in each subject will be assigned for the results of the Christmas examinations. Students prevented by illness from attending the Christmas examinations will, on presenting a medical certificate, be given sessional standing on the results of the April examinations. Candidates who fail in courses of the first and second years, terminating at Christmas, will be required to pass, at the April examinations, on an extra paper in the subject in which they have failed.

Christmas Examinations in the third and fourth years may be held at the option of the Professors. When held, the same value will be assigned to them as in the case of the first and second years.

2. An undergraduate who fails in one subject at the sessional examinations of the first or of the second year, will not be allowed to proceed with his course unless he passes a

supplemental examination therein at the beginning of the session, or takes the summer course, if there be one, in the subject, and passes the corresponding examination.

3. Failure in two or more subjects at the sessional examinations of the first or of the second year, or in one subject at the third year sessional examinations, involves the loss of the session. The Faculty may permit the student to recover his standing by passing a supplemental examination at the beginning of the following session. If he fail in any subject at this examination he will be required to repeat the year.

A summer course, on the same conditions as above, may be accepted instead of a supplemental examination.

- 4. Examinations supplemental to the sessional examinations will be held in September, simultaneously with the matriculation examinations. The time for each supplemental examination will be fixed by the Faculty; the examination will not be granted at any other time, except by special permission of the Faculty, and on payment of a fee of \$5.
- 5. A list of those to whom the Faculty has granted supplemental examinations in the following September will be published after the sessional examination.

Every candidate for a supplemental examination is required to notify the Registrar before the 1st of July of his intention to proceed to the examination. Forms of notification may be obtained on application.

# REGULATIONS FOR COURSES IN ARTS LEADING INTO THE PROFESSIONAL FACULTIES.

Any student intending to claim the privileges offered below, is required, at the beginning of the session, to present to the Dean of the Faculty of Arts a certificate of registration in the Professional Faculty, and to produce, at the end of the session, certificates of attendance and examination in the professional classes specified.

#### ARTS AND APPLIED SCIENCE.

1. Undergraduates beginning the third year in Arts, who have taken all the ordinary Mathematics of the first two years, and the Chemistry of the second year, and who wish to pursue

their professional studies in the Faculty of Applied Science so as to obtain the degrees of B.A. and B.Sc. (App. Sc.) within the following four years, will be exempted by the Faculty of Applied Science from the Mathematics of the first year in Applied Science and from Chemistry of the second year.

2. They must, unless by special permission of the Faculty of Arts, distribute the course of the third and fourth years in Arts over three years, in accordance with the following schedule of studies:—

### I. In the Third Year:-

(a) Physics of the third year.

- (b) Two of the courses which are not placed under the heading "Science" in the Arts curriculum. The time tables of the two Faculties allow the following to be chosen:—English, History.
- (c) Either one or two hours weekly in English Composition.\*

# II. In the Fourth Year:-

- (a) Physics of the fourth year.
- (b) One hour weekly in English Composition, if only one has been taken in the third year.\*
- (c) The Mathematics of the second year Applied Science (6 hours weekly as 1½ courses).

# III. In the Fifth Year:—

- The Mathematics of the third year Applied Science (2 hours weekly as a half course), or another course in the Arts curriculum.
- 3. Students who, having obtained permission of the Faculty, desire to complete the course for the B.A. Degree in four years, are required to take a full course in one subject in the Arts curriculum in addition to the courses prescribed in 2, II, above.

<sup>\*</sup> Note.—Students are recommended to distribute their English work over two years.

#### ARTS (B.A. COURSE) AND MEDICINE.

Students taking this course, who intend to practise in the province of Quebec, are required to matriculate and register with the Quebec Licensing Board at the end of their second year in Arts.

- I. Undergraduates beginning the third year, who have taken the Chemistry and Biology of the second year, and who wish to pursue their professional studies in the Faculty of Medicine so as to obtain the degrees of B.A. and M.D. within the following four years, will be exempted by the Faculty of Medicine from the subjects of Chemistry, Physics, and Biology in the first year of the Faculty of Medicine. In the second year (Arts) they are permitted to take the continuation course in Animal Biology, on the same conditions as students taking the six years' course leading to the degrees of B.Sc. and M.D.
- 2. They may complete the Arts curriculum by taking the following courses:—

### I. In the Third Year:—

- (a) Anatomy and Practical Anatomy, Histology and Physiology, of first year Medicine.
- (b) Two of the courses which are not placed under the heading "Science' in the Arts curriculum. The time tables of the two Faculties allow the following to be chosen:—
  - (1) French or Moral Philosophy or Economics.
  - (2) Political Science.
  - (c) Either one or two hours weekly in English Composition.\*

# II. In the Fourth Year:-

- (a) Anatomy and Practical Anatomy, Histology, Physiology, Chemistry, of second year Medicine.
- (b) One hour weekly in English Composition, if only one has been taken in the third year.\*
- 3. The Faculty strongly recommends intending students of Medicine who do not take the combined six years' course to spend a preliminary year in the study of the non-professional subjects, i.e., Biology, Chemistry, and Physics, before entering on the curriculum in the Faculty of Medicine.

<sup>\*</sup> Note.—Students are recommended to distribute their English work over two years.

#### ARTS (B.Sc. COURSE) AND MEDICINE.

Students taking this course, who intend to practise in the province of Quebec, are required to matriculate and register with the Quebec Licensing Board at the end of their second year in Arts.

- I. Students who wish to take a combined course in the Faculties of Arts and Medicine with a view to obtaining the degrees of B.Sc. (Arts) and M.D. within six years, must take Latin under head 6 of the matriculation requirements for the B. Sc. course, see p. 17.
- 2. They must take the ordinary B.Sc. course with the following modifications:—

Second year students shall take Elementary Biology. This course shall consist of either (1) the course in Elementary Biology required of first year students in Medicine (i.e., 8 weeks Zoology together with 4 weeks Botany), together with a further course after Christmas (during the spring term of the Faculty of Arts) in Animal Biology; or (2) the full ordinary course in elementary Biology of the Faculty of Arts, consisting of 12 weeks Zoology (up to Christmas) followed by 12 weeks Botany.

Third year students taking the Double Course shall be required to offer one of the following:—

- 1. Zoology.—(a) The full Ordinary Continuation Course of the Faculty of Arts, and in addition (b) half the Honours Course, the latter to be taken during the first half of the session.
- II. Physics. (a) The full ordinary course of the Faculty of Arts, under which head students may take either the course in sound, light and heat (Physics 2), or that on electricity and magnetism (Physics 3), or a combined course consisting of portions of these, and in addition (b) advanced work constituting half an Honours Course, the latter to be taken during the first half of the session.
- III. Chemistry.—(a) A half-course in Physical Chemistry, during the first half of the session (from Chemistry, 7, 8); (b) a half-course in Organic Chemistry, during the second half of the session (Chemistry, 3, 6); (c) advanced work constituting half an Honours Course, the last to be taken during the first half of the session.

IV. Botany. — (a) The full ordinary primary course of the Faculty of Arts (Botany, 2); (b) either half the Honours Course prescribed for fourth year students in the Faculty of Arts (Botany, 5); or half an Honours Course in Chemistry, Physics or Zoology. The work under (b) is in any case to be taken during the first half of the session.

Fourth Year.—Wednesday afternoon and Saturday morning of each week shall be devoted either (1) to Laboratory Work in connection with still more advanced study in the subjects selected during the third year; or (2) to work in another branch of science, provided the student is sufficiently well grounded to enable him to do the special work which may be assigned to him.

#### ARTS AND LAW.

Students intending to go forward to the Faculty of Law are recommended to include in their Third and Fourth Years Arts, such subjects as Constitutional Law and History, Economics, Political Science, and Roman Law.

#### COURSES LEADING TO FORESTRY.

See pages 136 and 137.

#### LITERATE IN ARTS.

A certificate of "Literate in Arts," will be given along with the professional degree in Medicine or Applied Science, to those who have completed two years' study in the Faculty of Arts, and have passed the prescribed examinations.

The same certificate will also be given to students of affiliated colleges in the provinces of British Columbia, Alberta and Saskatchewan, who have completed the work of the first two years and have passed the prescribed examinations as undergraduates of McGill University.

# INISTUDENTS OF THE UNIVERSITY ATTENDING AFFILIATED THEOLOGICAL COLLEGES.

I. The Faculty will make formal reports to the governing body of the Theological College which such students may attend as to:—(a) their conduct and attendance on the classes of the Faculty, (b) their standing in the several examinations; such reports to be furnished after the examinations, if called for.

2. Students who are pursuing a double course in Arts and Divinity (six years at least) will take in the third and fourth years the courses which constitute the ordinary curriculum in Arts, less a half course in each of these years, or a whole course in either.

# POST-GRADUATE COURSES.

For the Degree of Master of Arts.

A Bachelor of Arts desiring to proceed to the degree of Master of Arts at the end of one year from graduation, must take one year of graduate work in the University (the course of study having been first approved by the Faculty of Arts); must pass the examinations at the end of the year; and must present. if required, a satisfactory thesis. (See pp. 56 and 142.)

Permanent arrangements for courses of instruction suitable for candidates for the M.A. degree are made by the following Departments: - English (see p. 101); Mathematics (see p. 124); Physics (see p. 127). In other Departments courses may be arranged on application to the Head of the Department. Candidates should consult the professors concerned before submitting their courses to the Faculty.

For the Degree of Master of Science (in Arts).

The regulations for the degree of Master of Science (in Arts) are similar to those for the degree of Master of Arts. (See pages 57 and 142.)

For the Degree of Doctor of Philosophy..

See page 143.

# COURSES OF LECTURES.

### DEPARTMENT OF CLASSICS.

Assistant Professor:—A. J. Eaton, M.A., Ph.D. Assistant Professor:—S. B. Slack. M.A.

Lecturer:—Russell E. Macnaghten, B.A.
Tutor and Lecturer:—T. H. Billings, M.A.
Tutor (Royal Victoria College):—Elizabeth A. Hammond, B.A.

The four years' course in classics consists of a progressive study of the languages, literature, and history of the ancient Greeks and Romans. The work of each of the four years includes the reading of selected Greek and Latin authors, together with exercises in composition and translation. In the

first and second years, prominence is given to the study of the languages, and to the cultivation of facility in reading and accuracy in translating. In the third and fourth years, while the study of the languages is continued, the subject-matter and literary significance of the books are more fully dealt with, an I the work includes continuous courses of lectures on history, literature, and kindred subjects, and the writing of essays on matters connected with the subjects of the lectures.

Students may be examined on the work prescribed for each class, even though it may not have been covered in the lectures.

Subjects are suggested for Summer Readings in connexion with the work of each class. Students are recommended to study these subjects in the Summer Vacation. An examination on the Summer Readings will be held in the first week of October; and credit will be given for the results of this examination.

Students are also recommended to devote some part of the vacation to the subjects set down under the heads of History and Literature, which will be included among the subjects of the sessional examination.

### Greek.

#### ORDINARY COURSES.

The first year lectures in Greek are suited for those students only who have already reached the matriculation standard in the language. An elementary class in Greek will be instituted for students who have not had the opportunity of taking Greek as a school subject, provided that a sufficient number of such students present themselves.

All students taking Greek are expected to provide themselves with a grammar, a Greek-English dictionary, and an Atlas of ancient geography. The following are recommended:—

Allen's Elementary Greek Grammar.

Liddell and Scott's Greek Lexicon (Abridged, or Intermediate).

Kiepert's Atlas Antiquus; or, Putzger's Historical Atlas.

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#### First Year.

I. Lectures, four hours a week.

For 1906-7:—AUTHORS: Tales from Herodotus (Farnell, Macmillan), chs. VIII to XVI inclusive; Greek Reader, vol. I (E. C. Marchant, Clarendon Press), pp. 8 to 41; Scenes from Euripides' Medea (Sidgwick, Rivingtons).

Composition: North and Hillard's Greek Prose Composi-

tion (Rivingtons).

Translation at Sight: Greek Unseens in Prose and Verse, Junior Section (Liddell, Blackie).

GREEK HISTORY: 560 to 479 B. C. Book recommended, Cox's Greeks and Persians (Longman's Epoch Series), or Bury's History of Greece (Macmillan), chs. V to VII.

Additional work may be prescribed for advanced students.

#### Second Year.

2. Lectures, four hours a week.

For 1906-7:—AUTHORS: Summer Reading: Lucian, Timon (Mackie, Pitt Press). Sessional Lectures: Thueydides I. chs. 89 to 119, and 125 to 138 (Marchant, Macmillan); Plato, Laches (Tatham, Macmillan); Aeschylus, Persae (Sidgwick, Clarendon Press).

Composition: North and Hillard's Greek Prose Composition (Rivingtons).

Translation at Sight: Florilegium Tironis Græcum (Burrows and Flanders, Macmillan).

GREEK HISTORY: 479 to 403 B. C. Books recommended, Bury, History of Greece (Macmillan), chs. VIII to XI; Abbott, Pericles and the Golden Age of Athens (Putnam).

Advanced students will take the work of the Ordinary course, together with additional work to be prescribed, and will attend an additional lecture-course of one hour a week.

# Third and Fourth Years.

3. Lectures, four hours a week.

For 1906-7:—HISTORY AND LITERATURE: Greek History from 404 to 323 B. C. The lectures will include a course of twelve hours on this period of history, and a course of twelve hours on the History of Greek Thought, with special reference to Ethics and Politics.

AUTHORS: Summer Reading: Euripides, Hippolytus (Hadley, Pitt Press). Sessional Lectures: Plato, Republic (Adam's text, Pitt Press), selections; Euripides, Troades (Tyrrell, Macmillan).

Composition: Passages to be selected.

TRANSLATION AT SIGHT: Florilegium Tironis Græcum (Burrows and Flanders, Macmillan).

#### Honour Courses.

### Third and Fourth Years.

4. Honour students of the third and fourth years will take the work of the Ordinary course together with additional work, and will attend the Ordinary lectures (except those from which they may be exempted under the regulation on p. 75), together with four hours a week of additional lectures. They will study privately such parts of the authors and subjects prescribed as are not covered by the lectures.

Additional work for Honours:—1966-7:—Authors: (Third and fourth years), Plato, Republic (Adam, Pitt Press), in part; Sophocles, Antigone (Shuckburgh, Pitt Press).

(Fourth year only): Demosthenes, Philippic I and Olynthiacs I, II, III (Sandys, Macmillan); Aristophanes, Clouds (Merry, Clarendon Press).

COMPARATIVE PHILOLOGY: 48 lectures (see p. 95), which will be reckoned as forming part of the third and fourth year Honours Course in Greek and Latin together.

Composition: Passages to be selected.

Translation at Sight: Fox and Bromley, Models and Exercises in Unseen Translation (Clarendon Press).

(In 1907-8, the work of the third and fourth years will be arranged on the following lines: — Ordinary: HISTORY AND LITERATURE; Greek History to 404 B.C. The lectures will include a course on some part of the history, and a course on Greek poetical literature. Authors: Summer Reading; a portion of Herodotus. Sessional Lectures: Homer, Iliad, selections; a portion of Thucydides; a play of Sophocles. Additional for Honours: the Iliad, with special study of se-

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lected portions; selected Sources of Greek History, including an additional portion of Thucydides; selections from the Lyric and Elegiac poets; selected plays of Aeschylus or Sophocles).

(For Honour Courses in Classics, see also page 76.)

# POST-GRADUATE COURSES.

Graduates intending to continue their studies, whether with a view to a higher degree, or otherwise, are recommended to consult the Head of the Classical Department as to choice of subjects and methods of study. Guidance and assistance will be provided, as far as may be practicable.

BRITISH SCHOOL OF CLASSICAL STUDIES IN ATHENS.

McGill University is a contributor to the support of this School, which affords facilities for archæological and classical investigation in Greece. Graduates in Arts of McGill University are accordingly entitled to special privileges and advantages as regards tuition in the School.

### Latin.

# ORDINARY COURSES.

All students taking Latin are expected to provide themselves with a grammar, a Latin-English dictionary, and an Atlas of ancient geography. The following are recommended: — Allen and Creeneugh's New Latin Grammar; Lewis' School Dictionary, or White's Junior Students' Latin-English Dictionary; Kiepert's Atlas Antiquus, or Putzger's Historical Atlas.

# First Year.

I. Lectures, four hours a week.

For 1906-7:—AUTHORS: Cicero, de Amicitia (Massé, Bell); Livy XXI, chs. 39 to 59, 'Hanmbal's First Campaign in Italy' (Trayes, Bell); Virgil, Aeneid VIII (Sidgwick, Pitt Press). Composition: North and Hillard's Latin Prose Composition (Rivingtons).

TRANSLATION AT SIGHT: Rivington's Class Books of Latin Unseens (Smith), Book III.

ROMAN HISTORY: 264 to 146 B.C. Book recommended:—Myers, History of Rome (Rivingtons), Chs. XIII to XXIV; or, Shuckburgh, History of Rome (Macmillan), Chs. XVII to XXXII.

Additional work will be prescribed for advanced students.

### Second Year.

2. Lectures, four hours a week.

For 1906-7:—Authors: Summer Reading: Virgi!, Eclogues, omitting II and III (Sidgwick, Pitt Press). Sessional Lectures: Livy XXVII (Stephenson, Pitt Press); Virgil, Aeneid VI (Sidgwick, Pitt Press); Horace, Selected Odes (Wickham, Clarendon Press).

Composition: North and Hillard's Latin Prose Composition (Rivingtons).

TRANSLATION AT SIGHT: Alford's Latin Passages for Sight Translation (Macmillan).

ROMAN HISTORY: 146 to 31 B. C. Book recommended:—Myers, History of Rome (Rivingtons), chs. XXVI to XLIII; or, Shuckburgh, History of Rome (Macmillan), chs. XXXIII to XLVI.

For Advanced students: Authors and Roman History:—The same as for Ordinary students, with additional reading to be prescribed. Composition:—Bryans, Latin Prose based on Cæsar (Macmillan). Translation at Sight, Alford's Latin Passages.

# Third and Fourth Years.

3. Lectures, four hours a week.

For 1906-7:—HISTORY AND LITERATURE: Roman History, 31 B. C. to 180 A. D. Book recommended:—Bury, History of the Roman Empire to the death of Marcus Aurelius (Harper). The lectures will include a course of twelve hours on this period of history, and a course of twelve hours on Roman Life, as illustrated by the remains of Pompeii.

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AUTHORS: Summer Reading—Virgil, Georgies II (Sidgwick, Pitt Press). Sessional Lectures—Tacitus, Annals, I and II (Furneaux, Clarendon Press), smaller edition; Virgil, Aeneid, I and II (Sidgwick, Pitt Press); Martial, Epigrammata Selecta (Lindsay, Clarendon Press).

Composition: Bryans, Latin Prose based on Cresar (Macmillan), and passages to be selected.

TRANSLATION AT SIGHT: Rivingtons' Class Books of Latin Unseens (ed. Smith), Book XI.

Extra Course in Latin.—It is proposed to arrange an extra course of one hour a week in Latin for such students of the third and fourth years as may wish to continue their study of Latin without taking it as one of their regular subjects, provided that a sufficient number of applicants present themselves. This course may also be attended by graduates and others. The lectures will be given at some convenient hour in the afternoon. The work will correspond to a part of the work in Latin prescribed for the third and fourth years, and will consist of the reading of a Latin author, together with practice in composition and translation for those who desire it.

### Honour Courses.

# Third and Fourth Years.

4. Honours students of the third and fourth years will take the work of the ordinary course together with additional work, and will attend the ordinary lectures (except those from which they may be exempted under the regulation on p. 75), together with four hours a week of additional lectures. They will study privately such parts of the authors and subjects prescribed as are not covered by the lectures.

Additional work for Honours (1906-7): AUTHORS (Third and Fourth Years):—Tacitus, Annals XIII and XIV: Selections from the writers of the Empire, Gudeman, 'Latin Literature of the Empire, Vol. I, Prose; Vol. II, Poetry' (Harper).

(Fourth Year only), Livy, Book XXXVII; additional selections from the writers of the Empire.

Comparative Philology: 48 lectures (see p. 95), which will be reckoned as forming part of the Third and Fourth Year Honours Course in Latin and Greek together.

Composition: Passages to be selected.

TRANSLATION AT SIGHT: Fox and Bromley, Models and Exercises in Unseen Translation (Clarendon Press).

(In 1907-8, the work of the third and fourth years will be arranged on the following lines:—Ordinary. HISTORY AND LITERATURE: Roman History from 133 to 31 B. C. The lectures will include a course on this period of history, and a course on Roman Literature. Authors: Cicero, a Speech or Speeches, and Selected Letters; Horace, Epistles and Ars Poetica. Additional for Honours: additional portions of Cicero; portions of Lucretius; certain plays of Plautus; selections from Catullus.)

(For Honour Courses in Classics, see also page 76.)

# Post-Graduate Courses.

Graduates intending to continue their studies, whether with a view to a higher degree, or otherwise, are recommended to consult the Head of the Classical Department as to choice of subjects and methods of study. Guidance and assistance will be provided as far as may be practicable.

# BRITISH SCHOOL OF CLASSICAL STUDIES AT ROME.

McGill University is a contributor to the support of this School, which affords facilities for archæological and classical investigation at Rome. Graduates in Arts of McGill University are accordingly entitled to special advantages as regards tuition in the School.

#### Sanskrit.

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LECTURER	:	 

The two courses in Sanskrit are primarily intended for students who have passed the second year sessional examination, but permission may in certain other cases be obtained to attend the elementary course.

1. A. For beginners, the work mainly consisting in the mastering of the elements of Sanskrit Grammar with such composition as tends to fix in the mind the knowledge thus acquired. Etymological references will be frequently made

and comparisons suggested in order at once to familiarize the language and give it an educational value in spite of the elementary nature of the course. This course counts as a half-course qualifying for the degree, and it is especially recommended to students attending the half-course in Comparative Philology.

Two hours a week.

I. B. For those students who have already passed through Course A or its equivalent in Sanskrit preparation; one hour per week is devoted to Lectures on Indian Literature, commencing (1906-7) with the Post Vedic Period. Two hours are devoted to reading selections; one hour to grammar and composition bearing especially on the texts read. Course B counts as one full course to the Final; courses A and B together, one and one-half, the student taking up Course B not being debarred thereby from repeating a course in another department.

Four hours a week.

Books required:—Perry, Sanskrit Primer; Whitney's Sanskrit Grammar; Lanman's Sanskrit Reader (Ginn & Co.). For reference: Sanskrit Literature, A. A. Macdonell (Heinemann).

Summer Readings.—A course of Summer Readings will be suggested according to individual needs. During the months of May and June the lecturer will be glad to give his personal supervision to students of Sanskrit and is prepared to give lectures if due notice is given.

# Comparative Philology.

# LECTURER: -- S. B. SLACK, M.A.

A. The first part of the course on Comparative Philology will deal with the following subjects: the history of the Science of Comparative Philology; the Indo-Germanic languages and their classification and relation to one another; the primitive home and culture of the so-called Aryan people; the nature of compounds in Indo-Germanic; recent theories about Ablaut and its relation to the Indo-Germanic system of accentuation; the importance of Ablaut in explaining apparent irregularities of declension and conjugation; external Sandhi in the Indo-Germanic languages; and the influence of

Analogy and Contamination in the formation of words. The lectures will then go on to discuss the various sounds of the primitive Indo-Germanic language, and the development of those sounds in the various languages of the Indo-Germanic family.

B. After Christmas special attention will be devoted to the Comparative Grammar of Greek and Latin. This part of the course will be especially useful to Classical Honour students. At the same time students who desire to make a special study of Comparative Philology are recommended to take this course in addition to course A mentioned above.

Two hours a week.

#### DEPARTMENT OF ENGLISH.

PROFESSOR:—CHAS. E. MOYSE, B.A., LL.D. ASSOCIATE PROFESSOR:—P. T. LAFLEUR, M.A. ASSISTANT-PROFESSOR:—J. W. CUNLIFFE, M.A., D.LIT. TUTOR AND LECTURER (ROYAL VICTORIA COLLEGE):—SUSAN E. CAMERON, M.A.

# ORDINARY COURSES.

# First Year.

- 1. A. English Literature.—The course will present an outline of English Literature from the Anglo-Saxon Period to the Restoration, and will be illustrated by printed syllabuses and lantern slides. The general subject will be divided into three periods (Pre-Chaucerian, Italian, French), and approached for the most part through literary types. Students are recommended to use Morley's Charts of English Literature. Two hours a week.
- I. B. ENGLISH COMPOSITION.—A course of lectures, chiefly synthetical, on the principles of English composition, with special reference to the use of words and the construction of sentences and paragraphs. Regular essays are required of all students. Text-Book:—Nichol's Manual (or an equivalent). One hour a week.
- I. C. HISTORY.—The Main Epochs of European History, being History I. (See p. 116.)

For affiliated colleges, in place of the above: — Halleck's History of English Literature (American Book Co.) pp. 1-304; with the following readings:—Chaucer, Prologue to the Can-

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terbury Tales; Spenser, Faerie Queene, Book I; Milton, Comus; Johnson's Lives of the Poets, Dryden and Pope; European History (G. B. Adams, Macmillan). Regular practice and instruction in composition are strongly recommended. Second Year.

2. A. LITERATURE.—English Prose from Bacon to Burke. Three hours a week after Christmas, with the following special readings: — Bacon: Essays of Truth, of Unity in Religion, of Revenge, of Atheism, of Travel, of Friendship, of Plantations, of Building, of Studies; Browne: Religio Medici; Milton: Areopagitica; Defoe: A Journal of the Plague Year; Swift: A Tale of a Tub; Steele and Addison: The Tatler and the Spectator, passim; Goldsmith: The Citizen of the World. Craik's Prose Specimen and Chambers's Cyclopedia of English Literature (new ed.) may also be used.

Nineteenth Century Literature. Three hours a week before Christmas. The text-book used will be Nineteenth Century Literature (Cunliffe and Cameron, Copp, Clark Co., Limited).

2. B. Composition.—Continuation of I B.

Fortnightly Essays will be required and will be taken into account in determining the standing of students at the end of the session.

This course is obligatory for all second year students.

For affiliated colleges:—Halleck's History of English Literature, pp. 305-480, and Nineteenth Century Literature (Cunliffe and Cameron, Copp, Clark Co.). Continued work in composition is strongly recommended.

### Third Year.

3. A. English Literature.—Shakspere.—This course will begin with a review of the early history of the English drama, and of the conditions which led to its development in the time of Elizabeth. The advances made by the earlier Elizabethan dramatists will be noted, and Shakspere's methods illustrated by a comparative study of A Midsummer Night's Dream, Romeo and Juliet, Henry V. As You Like It, Hamlet, Macbeth, King Lear, and The Tempest; the relation of these plays to their sources will also be considered. Students are recommended to read as many of Shakspere's plays as they can, and to give special attention to those mentioned above. Three hours a week to the end of January.

- 3 B. A course on Poetry and the Drama. England from 1660 to 1789, with special and detailed reference to changes in literary ideals and expression during the period discussed. The lectures will include poets, from Dryden to Crabbe; dramatists, from the writers of Heroic plays to Sheridan. Students will be called upon to pay special attention to the following works: Dryden, Absalom and Achitophel; Pope, Selections from the Essay on Man, and The Rape of the Lock; Thomson, The Seasons (one book); Cowper, The Task (one book); Crabbe, The Borough (four divisions); Dryden, Essay on Dramatic Poesy; Addison, Cato; Goldsmith, She Stoops to Conquer; Sheridan, The School for Scandal. Two hours a week.
- 3. C. English Composition.—An advanced course on English Composition, including style, methods and principles of literary criticism treated from the historical point of view, and an introduction to the comparative study of literature in accordance with the most recent results of contemporary thought and research. In connection with this course students will be examined in a course of prescribed readings. Essays at stated periods are required of all.

Books of reference and authorities: — Saintsbury's History of Criticism; Lessing, Sainte-Beuve, Brunetière, Arnold, Ruskin, Worsfold. One hour a week.

# Fourth Year.

4. A. English Literature.—A Course on the Leading Poets of the Nineteenth Century. The chief aspects of the French Revolution will be considered, and Republican feeling in England illustrated chiefly from the works of Wordsworth, Coleridge and Southey. The indirect revolutionary poets Byron and Shelley will then be considered, and their typical poems, together with those of the poets already mentioned, critically examined. The remainder of the course will be given to Scott, Keats, Tennyson, Browning, Matthew Arnold and Swinburne. Two hours a week.

The poems which have been selected for private reading will be announced at the commencement of the session.

4. B. A general course on the history of English Prose Fiction from Richardson to the middle of the nineteenth century, treating of the various forms successively given to Eng-

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lish novels during the period, and the influences that stimulated or otherwise affected such productions. While students are expected to show particular knowledge of English master-pieces in this kind, frequent reference to cognate works by continental writers will also demand some familiarity with contemporary European literature. Portions of the following works will be selected for detailed study and discussion: Richardson, Clarissa Harlowe; Fielding, Amelia; Goldsmith, The Vicar of Wakefield; Godwin, Caleb Williams; Walpole, The Castle of Otranto; Thackeray, Henry Esmond. Books of reference:—Raleigh, The English Novel; Dunlop, History of Fiction; Cross, The Development of the English Novel. Two hours a week.

4. C. ENGLISH COMPOSITION.—The statement respecting 3 C (p. 98) indicates the method and character of this course, which is regarded as a continuation of the course in the Third Year.

### HONOUR COURSES.

### Third Year.

In addition to the ordinary work of the third year Honour students will take the following, together with courses 9, 10, 11, and 12 (pp. 100 and 101):—

5. English Language. Two hours a week. Sweet, Anglo-Saxon Reader, Extracts I, II, III, XX; Wright, Primer of the Gothic Language, The Gospel of St. Mark (Clarendon Press). (The use of Braune, Gotische Grammatik is recommended.)

Students who took English Language in the second year in 1905 will take only one hour in the third.

#### Fourth Year.

Honour students in the fourth year will select Language or Literature.

Language Students will take the following special courses in addition to 4.1, 4B, and 4C:—

6. Anglo-Saxon.—The whole of Béowulf will be read in class and illustrated by notes on origins, philology and textual emendations. *Text-Book*: Harrison and Sharp's Béowulf (Ginn). Students will read selected portions of other poems

for examination. Anglo-Saxon prose will be studied mainly in the translation of Gregory's Pastoral Care and Ælfric's Homilies. Students will be guided in the examination of dialectal texts and referred to important articles in periodical literature dealing with that subject and also with the field of Anglo-Saxon generally.

Two hours per week.

7. MIDDLE ENGLISH. — The course is intended to give a knowledge of dialectical English and to illustrate the changes the language has undergone. The texts given in Morris's Specimens of Early English, Part I, and Morris and Skeat's Specimens of Early English, Part II, may be regarded as the chief material for study. A list of books of reference and of important monographs will be given at the commencement of the course.

Two hours a week.

8. Mœso-Gothic.—The course on Mœso-Gothic is intended to open the way to the comparative study of allied Teutonic languages. Particular attention will be given to the phonological relations of Mœso-Gothic and Anglo-Saxon. Text-Books: Wright, Primer of the Gothic language; Ulfilas (Heyne).

Honour Students selecting Literature will take the following, in addition to the ordinary work of the Fourth Year, and one hour a week in Language:—

9. Prose Writers before Dryden. — The main object of the course will be to discuss the chief literary influences visible in the Pre-Restoration writers of English prose and to examine characteristics of style. The subject will be treated chronologically. As the course is largely interpretative and critical, facts of biography will be used only when they illustrate points of moment.

Students will read the following works for examination: More, Utopia; Sidney, An Apologie for Poetry (Cook); Lodge, Rosalynd (Collier's Shakespeare's Library); Bacon, New Atlantis; Earle, Microcosmographie (Arber); Milton, Areopagitica (Hales).

Two hours a week.

10. Comparative Methods in Literary Study.—A course of lectures setting forth the chief tendencies manifested in contemporary criticism, and here applied to the examination of important literary relations between the Continent of Europe and England through the works of Montaigne, Molière, Voltaire, LeSage, etc.; with ample reference to the Literatures of Germany, Spain, and Italy, in corresponding manner. Two hours a week.

II. ELIZABETHAN NON-DRAMATIC POETRY. — The development of the leading types of non-dramatic poetry will be traced under the following heads:—translations: poetic theory and criticism: the lyric: the sonnet: the pastoral; satire; historical and patriotic poetry; epic.

For examination: Sidney. Astrophel and Stella; Shakspere. Sonnets; Spenser, Shepheards Calender, Mother Hubberds

Tale, and Faerie Queene. Book I.

Two hours a week before Christmas.

12. TENNYSON (Continuation) and MINOR POETS of the

NINETEENTH CENTURY. One hour a week.

For examination: Mand and the Iylls of the King. Readings from minor poets will be announced at the beginning of the session.

Any of the above Honour Courses may be taken as an ordinary course with the approval of the Faculty, provided that the

time-table allows of such substitution.

It is intended to give Honour Courses in 1907-8 on (a) English Prose from Dryden to Burke and (b) American and Canadian Literature; in 1908-9 on (a) Nineteenth Century Prose and (b) Browning.

(For Honour Courses in English, see also pages 76 and 77.)

# POST-GRADUATE COURSES.

13. SHAKSPERE. — The history of Shaksperean criticism, textual and æsthetic, will be traced from its beginnings in England and Germany to the present time. Students will be directed to make themselves acquainted by private reading with the most important problems and results of modern research.

Two hours a week before Christmas.

Courses will, if applied for, be given to graduate students on (a) The Masque and (b) The Sources and Development of Pre-Shaksperean Tragedy.

Honour Courses in History and English.

A new Honour Course in these subjects will be offered during the session 1906-1907. For particulars, see p. 77.

#### DEPARTMENT OF MODERN LANGUAGES.

PROFESSOR:—HERMANN WALTER, M.A., PH.D.
ASSOCIATE PROFESSOR:—LEIGH R. GREGOR, B.A., PH.D

LECTURERS:—

[E. T. LAMBERT, B.A.

J. L. MORIN, M.A.

LECTURER AND TUTOR (ROYAL VICTORIA COLLEGE):—

MLLE. MILHAU, LIC. UNIV. FR.

#### A.—French.

Owing to the position which this University occupies in the midst of a very large French-speaking population, there is a permanent demand for courses of a practical, conversational character; for the same reason the Department profits by the co-operation of French church services, French family life, French newspapers, French theatres, French literary clubs, and public lecture courses in the French language.

In drawing up the following dual courses endeavours have been made to meet the special needs of the professional men of the Province of Quebec (every student being given the opportunity to learn to speak French), and also to provide for the maintenance of scientific methods. In Courses I and 3, the study of grammar and literature is carried on in accordance with the usual academic traditions, the French language being, however, largely used in class instruction. In Courses 2 and 4, the method of teaching is of a more practical character; the French language only is used, and the texts prescribed are made the subject of conversation, analysis, résumés, etc. In the third and fourth years all lectures are given and all studies carried on in French.

Honours may be taken in French and German together or in Latin and French or in Latin and German. (See page 76.)

### ORDINARY COURSES.

#### First Year.

1. Borel, Grammaire Française (Holt and Co.); Sandeau, Mlle. de la Seiglière (Holt); Super, Histoire de France

(Holt).

2. Dandet, Contes (Holt); Lamartine, Scènes de la Révolution Française (Heath and Co.); Pailleron, Le monde ou l'on s'ennuie (Jenkins); German and French Poems (Holt an 1 Co.).

The examinations for the students of Affiliated Colleges will include the whole of courses 1 and 2. Equivalents for the oral work of Course 2 and the oral examination will be stated on

application.

Four hours weekly, two for each course.

### Second Year.

SUMMER READINGS for students entering on their second year:—Molière, Femmes Savantes (Heath & Co.); Daudet, Le Petit Chose (Heath).

The examination on Summer Readings will be held in the

first week of the session.

# Sessional Lectures.—

3. Borel, Grammaire Française (Holt and Co.); Corneille, Le Cid (Holt); Vigny, Servitude et Grandeur Militaires;

Elementary Historical French Grammar.

4. Mansion, Esquisse de la Littérature Française (Mc-Dougall, London); Racine, Andromaque (Holt); Molière. L'Avare (Heath and Co.): Mme de Stäel, Le Directoire (Pitt Press); German and French Poems (Holt and Co.).

The examination for the students of Affiliated Colleges will include the whole of Courses 3 and 4. Equivalents for the oral work of Course 4 and the oral examination will be stated on application.

Four hours weekly, two for each course.

For Honour students an additional hour will be provided for the purpose of further study.

# Third and Fourth Years.

The courses will consist mainly in the study of French Literature and Advanced Prose Composition.

Summer Readings for students entering on the Third or Fourth Year:—Mme de Sévigné, Lettres (Ginn); Molière, Les Précieuses Ridicules (Ginn).

The examination on Summer Readings will be held in the

first week of the session.

### Sessional Lectures:—

5. For 1906-1907:—Literature up to the end of the XVIIth Century. Corneille, Polyeucte; Racine, Les Plaideurs, Iphigénie; Molière, Le Misanthrope; Boileau, Choix d'Epîtres et de Satires; La Bruyère, Selections; Madame de la Fayette, La Princesse de Clève.

Prose Composition:—Spiers, Graduated Course of Translation into French Prose (Simpkin, Marshall and Co., London).

N.B.—In order to be admitted to the above class a student must understand French well enough to take lectures delivered in French.

Four hours weekly.

6. For 1907-1908:—Literature in the XVIIIth and XIXth Centuries. Lesage, Gil Blas (Heath and Co.); Marivaux, Le Jeu de l'Amour et du Hasard; J. J. Rousseau, Selections; Voltaire, Mérope; Victor Hugo, Hernani; Musset, Selections (Ginn and Co.); Balzac, Eugénie Grandet; Richepin, Par le Glaive.

Prose Composition.—Spiers, Graduated Course of Translation into French Prose (Simpkin, Marshall and Co., London).

# Honour Courses.

# Third and Fourth Years.

The work of the Honours Classes in French is divided into three sections. The First includes the historical study of the French language, the Second, the History of French Literature, the Third, French Composition and the reading and study of French texts. The First and Second Sections are taken up in alternate years, the Third annually. Students of the third and fourth years take lectures together. In order to obtain Honours, candidates must be able to speak French fluently.

7. History of Literature (1900-1907): - Moralistes et l'édagogues Français.

Two hours weekly.

8. L'HILOLOGY (1907-1908): — Students will use Schwan's Altfranzösische Grammatik (revised by Behrens). Darmesteter's Cours de Grammaire Historique. Nyrop's Grammaire Historique and Bartsch, Chrestomathie de l'Ancien Français.

Three hours weekly.

9. Texts and Composition:—Students will receive instruction in the art of composition. They will be required to write a number of French papers on literary subjects, in connection with which readings will be suggested.

One hour weekly.

- Students will take as part of their Honour Course in Modern Languages that part of the Course on Comparative Philology which deals with the general principles of linguistic development.

N.B.—Before entering on their Third Year Course, Honour Students are expected to have read the following:—Corneille. Le Cid, Horace, Cinna, Polyeucte; Racine,—Andromaque, Britannicus, Phèdre, Athalie; Molière,—Ecole des Fennnes, Misanthrope, Tartuffe, Le Bourgeois Gentilhomme, Les Femnnes Savantes; Boileau,—L'Art Poétique, except when these texts are part of the readings prescribed for the Ordinary Course in the Third or Fourth Year.

(For Honour Courses in Modern Languages, see also page 76.)

# B. German.

# ORDINARY COURSES.

# Beginners Course.

I. The Joynes-Meissner German Grammar (Heath and Co.); Joynes, German Reader (Heath and Co.); Stern, Geschichten vom Rhein (American Book Co.); Riehl, Der Fluch der Schönheit (Holt); Schiller, Maria Stuart (Holt and Co.); Wildenbruch, Harold (Heath and Co.).

A tutorial class conducted during May and June enables students to overtake work not completed by the close of the Winter Session. Students intending to proceed to the second year are required to take this class, or, if exempted by the Faculty, to take a supplemental examination in September.

Four hours weekly.

#### First Year.

2. The Joynes-Meissner German Grammar (Heath and Co.); Horning, German Composition; Riehl, Der Fluch der Schönheit (Holt); Fraytag, Die Journalisten (Ginn); Schiller, Maria Stuart (Holt and Co.); German and French Poems (Holt and Co.).

Four hours weekly.

The examination for the students of Affiliated Colleges will, in addition to the above, include equivalents for the oral examination, which will be stated on application.

#### Second Year.

SUMMER READINGS for students entering on their second year:—Schiller, Die Piccolomini (Holt).

The examination on Summer Readings will be held in the first week of the session.

3. Sessional Lectures. — The Joynes-Meissner German Grammar; Horning, German Composition; Schiller, Jungfrau von Orleans (Holt); Goethe, Egmont (Ginn); Schiller, Der Dreiszigjährige Krieg, 3rd Book (Holt); Keller, Bilder aus der Deutschen Literatur (American Book Co.), edition 1905.

Four hours weekly.

For Honour students an additional hour will be provided

for the purpose of further study.

The examination for the students of Affiliated Colleges will, in addition to the above, include equivalents for the oral examination which will be stated on application.

# Third and Fourth Years.

Summer Readings for students entering on their third or fourth year: — Grillparzer, Der Traum ein Leben (Heath); Stifter, Das Heidedorf (Am. Book Co.).

The examination on Summer Readings will be held in the

first week of the Session.

- 4. (For 1906-1907): Biedermann, Deutsche Bildungszustande im 18. Jahrhundert (Holt): Schiller, Die Braut von Messina (Holt); Kleist, Prinz Friedrich von Homburg (Ginn & Co.); Sudermann, Der Katzensteg (Heath & Co.); Heine, Poems (Heath); Harris, German Composition (Heath). Four hours weekly.
- 5. (For 1907-1908): Lessing, Nathan (Am. Book Co.); Gethe, Iphigenie (Pitt Press); Lessing, Dramaturgie (Selections); Schiller, Wallenstein's Tod; Keller, Legenden (Holt and Co.).

Translation of prose passages from English into German. Four hours weekly.

### HONOUR COURSES.

### Third and Fourth Years.

The work of the Honour Classes in German is divided into three Sections. The First includes the historical study of the German Language; the Second, the History of German Literature; the Third, German Composition. The First and Second Sections are taken up in alternate years; the Third, annually. Students of the third and fourth years take lectures together. Language in German is taken up in the same session as Literature in French, and vice versa. The German Language alone in used in class instruction.

In order to obtain Honours, candidates must be able to speak. German fluently.

6. Philology. (For 1906-1907):—A general outline of the development of the German Language and a special study of the Middle High German period, its language and literature.

The following books will be used:—Bachmann, Mittelhoch-deutsches Lesebuch (Faesi and Beer, Zurich); F. Kaufmann, Deutsche Grammatik; Behaghel, Die Deutsche Sprache; Wright, Middle High German Primer (Clarendon Press).

Three hours weekly.

7. HISTORY OF LITERATURE. (For 1907-1908): — Honour Students will be required to make a special study of certain men, movements and periods.

Two hours weekly.

8. Composition: — Perini, Extracts in English Prose (Hachette).

Students will take as part of their Honour Course in Modern Languages that part of the Course on Comparative Philology which deals with the general principles of linguistic development.

N.B.—Before entering on their third year course, Honour students are expected to have read the following:—Lessing,—Minna von Barnhelm or Nathan der Weise, Emilia Galotti, Schiller,—Wilhelm Tell, Maria Stuart, Jungfrau von Orleans, Wallenstein, Ballads; Gœthe, — Gœtz von Berlichingen, Egmont, Hermann und Dorothea, Faust I, Poems; except when any of these texts are part of the readings prescribed for the Ordinary Course in the third or fourth year.

(For Honour Courses in Modern Languages, see also page 76.)

### Italian.

LECTURER:-LEIGH R. GREGOR, B.A., PH.D.

For 1907-08.

The following course, given in alternate years, is intended for students who have passed the Sessional Examination of the second year. Partial students who wish to join the class must give satisfactory evidence of their ability to keep up with the undergraduates.

Grandgent, Italian Grammar (Heath & Co.); Grandgent, Italian Composition (Heath & Co.); De Amicis, Selections from Il Cuore; Manzoni, Selections from I Promessi Sposi; selections from the Divina Commedia; Notes on some of the great names of Italian Literature.

# Spanish.

LECTURER: -J. L. MORIN, M.A.

# First Year.

Hill and Ford, Spanish Grammar (Heath); Matzke, Spanish Readings (Heath); Valera, El Pajero verde (Ginn); Moratin, El si de las ninas (Ginn); Galdos, Doña Perfecta (Ginn).

Four hours weekly.

# DEPARTMENT OF SEMITIC LANGUAGES.

PROFESSOR: -D. COUSSIRAT, B.A., B.D., D.D., OFFICIER DE L'INSTRUCTION PUBLIQUE.

The course comprises lectures on the above languages and their literature, their genius and peculiarities. Comparative philology, affinity of roots, etc., also receive due attention, while the portions selected for translation will be illustrated and explained by reference to Oriental manners, customs, history, etc.

# ORDINARY COURSES.

### Second Year.

 Hebrew grammar and translation. English rendered into Hebrew. Masoretic notes explained. The Hebrew text compared with the Septuagint and Vulgate Versions.

Four hours a week.

This course may also be taken as a course in either the third or fourth years, by students who have not taken it in the second year.

# Third Year.

2. Hebrew Syntax. Translation of difficult passages of the Old Testament. Notes on the Massora and the Talmud (Mishna and Gemara). Aramaic.

# Fourth Year.

3. Translation continued. Characteristics of the Semitic Languages, particularly of Syriac, Samaritan, Rabbinic, Arabic, Assyrian. Semitic Inscriptions. Four hours a week for the combined courses.

# HONOUR COURSES.

# Third and Fourth Years.

- 4a. Hebrew.—Genesis, Isaiah, 40-66. Ecclesiastes. Literature.—Books to be selected at the beginning of the session.
- 4b. Aramaic.—Daniel. Ezra. Selections from the Targums.

  Literature.—Books to be selected at the beginning of the session.

Two hours a week.

- 5a. Hebrew. Malachi, Psalms, 1-72; Job, 26-42. Literature. Renan. A general History of the Semitic Languages.
- 5b. Syriac.—Selections from the Peshito, and from the Chronicles of Bar Hebræus. *Literature*.—W. Wright, Comparative Grammar of the Semitic Languages.

  Two hours a week.

(Fer Honour Courses in Semitic Languages, see also p. 77.)

### DEPARTMENT OF PHILOSOPHY.

Assistant Professor of Psychology and Lecturer in Philosophy. J. W. A. Hickson, M.A., Ph.D.

The courses in this department are designed to meet the wants of students in the Faculty of Arts, of students in the professional schools and of partial students.

In addition to regular and continuation courses short sets of study or lecture-courses are given from time to time. See e.g. Courses 13, 14, or Courses 6A, 6B.

In all the ordinary courses such topics as the subject of Scientific Method, the relation of Ethics to legal and social questions, the relations of Psychology and Philosophy to Education, etc., are definitely kept in view.

Attention is drawn to the fact that it is now possible for students (graduate and others) to specialise in Psychology as well as in Mental and Moral Philosophy.

### ORDINARY COURSES.

#### Second Year.

IA. Psychology. Text-book:—James, Psychology, Briefer Course, pp. 1-277, omitting chs. 7, 14, 15.

This course will include a general account of sensation, with special illustration by reference to the sensations which are of pre-eminent importance for the purposes of practical life (sight, hearing, contact, movement). This will be followed by a general outline sketch of the functions of the central nervous system and particularly of the higher brain-centres, as the physiological correlates of mental activity. The nature of

Habit and its importance for mental life will next be studied, and will be followed by an examination of the leading features of the concrete stream of actual mental life and the principal constituents of the self. The course will conclude with a study of attention and association. Occasional essays will be prescribed. Three hours weekly throughout the first term of the session.

IB. Formal Logic.—In the second term a course in Formal Logic and Fallacies. Text-book: S. H. Mellone, Introductory Text-Book of Logic, chs. 1-3, 4 (§§ 1-3), 5-7 (omitting ch. 6, §§ 8-11), 10. The course will embrace an outline of the general formal principles of valid reasoning, with frequent illustrations of their application to actual discussion. This will be followed by more detailed examination of the types of fallacious reasoning most commonly perpetrated in literature and daily life. Weekly exercises will be set and will form an important feature of the course. Three hours weekly.

### Third or Fourth Year.

2A. Moral Philosophy.—In the first term a course on the Outlines of Ethical Theory. The following topics—among others—will be treated of by means of short sets of lectures, study-notes, private reading, exercises, discussion, etc.:—the phenomena of the moral life in the individual and in the race; the postulates of ethical science; the relations of Ethics to the sciences, to law, politics, education, etc.; theories of conscience and the moral standard; ancient and modern conceptions of Moral Philosophy; the Ethics of idealism and the Ethics of evolution; the theory of moral progress.

2B. In the second term a course on the problems of Social

Philosophy and Applied Ethics.

Short sets of lectures will be given upon the following topics: Ethics and the sociological movement of recent years; biological and psychological theories of society and of social progress; the Ethics of the social questions; the Duties and the Virtues; the unity of the moral life; moral pathology; moral training; the ethical problem of the present.

Mackenzie's Manual of Ethics will be used for purposes of class-room discussion, but the student will constantly be referred to the literature of the subjects treated, and to sources

of independent investigation.

The course will be varied from year to year according to the needs of the subject and those of the students.

Four hours per week.

For a continuation course, see either 5A, 5B, or 9 with 7 or 12.

3A. General Course in Psychology, analytic and experimental.—An attempt will be made to indicate the most important topics of modern psychological inquiry and to illustrate and test some of the results reached by leading investigators. Among the problems to be discussed will be: — Association, perception, imagination, illusions, memory, perception of time, perception of space and of external reality, instinct, the emotions and will, hypnotism and subliminal consciousness, theories concerning the relation of mind and body.

# 3B. (Continued throughout the session.)

Books recommended: James, Principles of Psychology; Stout's Manual of Psychology, Ebbinghaus, Grundzüge der Psychologie, Murray's Introduction to Psychology, Strong's Why the Mind has a Body, Titchener's Manual of Experimental Psychology.

Four hours a week throughout the session.

4. Logic and Metaphysics. — Preliminary study of Bosan-quet's Essentials of Logic. Discussion of the relation between Logic, Metaphysics and Psychology; the ultimate presuppositions of inference; the more important inductive methods of experimental science (as e.g. in Mill's System of Logic); the relation between existence, knowledge, and truth. The course thus aims at being at once a continuation of the second year course 1B and an introduction to the problems of Metaphysics and the Theory of Knowledge which are pursued further in courses 10 and 13.

Four hours a week throughout the session. May be given in alternate years with course 5.

Books of reference:—Bosanquet, Logic: Bradley, Principles of Logic; Mill, System of Logic: Jevons, Principles of Science; Hobhouse, Theory of Knowledge: Lotze, Logic; Sigwart, Logic; Venn, Empirical Logic: Taylor, Elements of Metaphysics.

#### Fourth Year.

5A. History of Modern Philosophy.

First Term: From the Renaissance to Kant.

Fours hours a week.

5B. Second Term:-From Kant to the Present Time.

Books of Reference: — Falckenberg's History of Modern Philosophy; Höffding's History of Modern Philosophy (2 vols., translated by Meyer); Adamson's Development of Modern Philosophy.

Four hours a week.

Here and in other courses students are requested to procure some of the cheap texts in the *Open Court Pub. Co.* Series of *Philosophical Classics*.

### ADVANCED COURSES.

#### Second Year.

6A. Introduction to Philosophy.—Study of some easy pieces of typical philosophical literature such as Descartes' "Discourse on Method," Berkeley's "Dialogues," Plato's "Phædo," Spencer's "First Principles." Lecture notes upon the same and upon the general outlines of philosophy. This course is designed to start students upon the work of intelligent philosophical reflection and will not in the first instance entail an undue amount of work on their part. It will be adapted to the needs of beginners in philosophy whether undergraduate or partial students.

One hour a week throughout the session.

6B. An Introduction to Psychophysics. — This course will be supplementary to IA. After a careful discussion of the various views regarding the localization of brain functions, the Weber-Fechner law will be investigated by the different psychophysical methods. The psychophysical theories of light sensations put forward by Helmholtz, Hering and others will be compared; and some experiments in reaction-time will probably be made. No text-book is prescribed, students being referred to different authors according to the problems investigated.

One hour a week throughout the session.

# Honour Courses.

### Third Year.

Honour students will take the ordinary course of the fourth

year (5A and 5B) and, in addition, the following:

7. A course in Greek Philosophy. Students are expected to make an independent study of the fragments of one of the early philosophers, and to write an essay embodying the results of their study.

Pre-Socratic Physicists in Ionia, Italy and Sicily. The Athenian Period, and the rise of systematic Logic, Ethics and Psychology: Socrates, Plato, Aristotle. General diffusion of Philosophy over ancient life as a rule of conduct: Stoicism,

Epicureanism, Scepticism.

Books of Reference:—Zeller, History of Greek Philosophy; Windelband, History of Ancient Philosophy; Burnet, Early Greek Philosophy; Ritter and Preller, Historia Philosophiæ Græcæ; E. Wallace, Outlines of the Philosophy of Aristotle.

Two hours weekly.

8. Plato and Aristotle. In this course it is expected that some work of each of these thinkers will be read.

Books prescribed for 1906-7: — Plato, Philebus; Aristotle, Metaphysics, Bk. A. Two hours weekly.

Courses 7 and 8 will be given in alternate years.

9. The Philosophy of Kant.—Lectures, study notes, and discussions of the writings of Kant, with a study of Kant's influence upon philosophy. The various translations of Kant or of portions of Kant's writings (Watson's Selections e.g.) will be used, with use of the German text where possible. Two hours weekly throughout the session. May be taken with 7 or 8 to make a four-hour course.

# Fourth Year.

ro. Advanced Formal Logic. — Limitation and defects of traditional Aristotelian Formal Logic; difficulties in traditional doctrines of Immediate Inference; the existential import of Propositions; defects of the Aristotelian syllogism; non-syllogistic forms of Inference; reasoning from mathematically definite premises; the Logic of extension: Jevons's Equational logic, modern Symbolic logic, outlines of the Algebra of Logic.

One hour a week.

Books of reference recommended:—Boole, Laws of Thought; Jevons, Principles of Science and Studies in Deductive Logic; Keynes, Studies in Formal Logic; Venn, Symbolic Logic.

11. Psychological Seminary. — For students who have already taken or are taking Psychology 3A, 3B. During the session of 1906-7 *cither* the problem of spatial perception, with experiments, or the Psychology of the Higher Vertebrates will form the subject of investigation.

Two hours weekly throughout the session.

12. Advanced Moral Philosophy. — Designed to meet the wants of students who have taken course 2, or who are otherwise competent to undertake the study of the more important works (Classical or Modern) upon the theory of morals, or to pursue the study of special questions in Ethics and Social Philosophy.

As a rule a careful study will be undertaken of the following works:—Aristotle's Ethics, Green's Prolegomena to Ethics, Sidgwick's Methods of Ethics, along with prescribed portions of writers like Spencer, Stephen, Martineau, and others. Special topics, however, (both in Theoretical and Applied Ethics) will also be prescribed for investigation and discussion, and the course will be varied from year to year to suit the needs and the capacities of students. It may occasionally be applied to suit the needs of advanced students in other departments, such as Classical or Modern Literature, Political Economy, Biology, History. Two hours weekly throughout the session.

of such questions in philosophical science as may, from time to time, seem to require specialised treatment. Such topics as the following may be considered:

Systematic thinkers of the Seventeenth Century; the English Utilitarians; some Cosmological Problems of the present time; the Philosophy of Evolution. Two hours a week.

Graduate study and Seminary Work may be undertaken in connection with any of the more advanced of the above courses, e.g. Nos. 9, 10, 11, 12, 13. All such work, however, will as a rule depend upon the previous training of the student, and upon his capacity for original research under the personal guidance of members of the Department.

Fourth year students are expected to present an essay or thesis to be approved by the Department.

(For Honour Courses in Philosophy, see also page 77.)

14. General Introduction to Philosophy.—During the winter 1906-7, a short series of public lectures similar to those of 1905-6 may again be given.

The lectures will be intended for persons inside and outside

the University.

A printed sheet with detailed statements as to the matter of the Lectures will be issued at the beginning of the winter.

#### DEPARTMENT OF HISTORY.

PROFESSOR:—CHARLES W. COLBY, M.A., PH.D. ASSOCIATE PROFESSOR:—STEPHEN B. LEACOCK, B.A., PH.D.

# ORDINARY COURSES.

### First Year.

I. The Main Epochs of European History.

Twenty-four lectures will be given on the leading aspects of Ancient, Mediæval and Modern History. The design of the course is less to present a mass of facts than to illustrate the chief features of racial, political and social progress. The sessional examination will be based mainly on the lectures and on the following text-book:—"European History," by G. B. Adams (Macmillan). The results of the examination will be counted under the head of English. Students will be required to present short essays on historical subjects at regular intervals. A few illustrated lectures may also be given if suitable hours can be found. The use of Putzger's Historischer Schul-Atlas is recommended.

One hour a week.

# Third or Fourth Year.

2. The Mediæval and Modern History of Europe, 313-1648. This is a general course dealing with the historical development of European nations from the Edict of Milan to the Peace of Westphalia. Special attention will be devoted to institutions and movements. Topics for investigation will be assigned, and students will write at least one thesis during the year. Readings to accompany each lecture are assigned in the syllabus for the course.

Four hours a week.

# Honour Courses.

# Third and Fourth Years.

- 3. The Renascence. Two hours a week. (Omitted in 1906-1907.)
  - 4. The Reformation—1563. Two hours a week.
- 5. The Catholic Revival and the Thirty Years' War. Two hours a week. (Omitted in 1906-7.)
- 6. The Political and Constitutional History of Europe since 1789. Two hours a week.
- 7. English Constitutional History 1307. Two hours a week.
- 8. The Political and Constitutional History of the United States and Canada. Four hours a week. (Omitted in 1906-1907.)

### · Fourth Year.

9. Historical Seminary. Four hours a week.

Texts. — Honour students in History will be examined at

the end of the third year on the following texts:-

Herodotus, VI—VIII. Macaulay's trans.; Thucydides, I, II. 1—65, VI, VII, Jowett's trans.; Plutarch, The Lives of Aristides, Themistocles, Pericles and Timoleon, Clough's trans.; Polybius, I, II, V, Shuckburgh's trans.; Livy, XXI-XXII, Church and Brodribb's trans.; Tacitus, Annals II. Germania, Vita Agricolæ, Church and Brodribb's trans.

Honour students in History will be examined at the end of the fourth year on the following texts:—

Clarendon, History of the Rebellion, Book XI; Gibbon, Decline and Fall, chaps. XLIV, L, LI, LXVI; Burke, Reflections on the French Revolution: Macaulay, History of England, chap. III; Bagehot, The English Constitution; Stubbs, Select Charters, Introduction; Captain Mahan, The Influence of Sea Power on History; Langlois et Seignobos, Introduction aux Etudes Historiques, trans. G. G. Berry; Bryce, The American Commonwealth, Vol. I; Parkman, Montealm and Wolfe.

(For Honour Courses in History, see also page 77.)

SUMMER READINGS.—All students in History are expected to follow a course of Summer Readings as a preparation for the work of the ensuing session. Special programmes will be drafted with a view to individual needs.

Honour Course in History and English.

A new Honour Course in these subjects will be offered during the session 1906-1907. For particulars, see p. 77.

# DEPARTMENT OF ECONOMICS AND POLITICAL SCIENCE.

PROFESSOR:—A. W. FLUX, M.A.
ASSOCIATE PROFESSOR:—STEPHEN B. LEACOCK, B.A., PH.D.

ORDINARY COURSES.

#### Second Year.

# I. DESCRIPTIVE ECONOMICS.

This course will be prefaced by a short study of Commercial Geography. Following this, the most important features of modern industrial and commercial organization will be studied, including trade and transportation, the great wholesale markets, joint stock companies, monetary and banking systems, trade unions and wage-systems, with the purpose of preparing the student for the study of economic and political theory.

Text-books in Commercial Geography:—Gonner, Commercial Geography; Atlas of Commercial Geography (Pitt Press Series).

Readings bearing on the topics of the lectures will be given. Ashley's British Industries and Hatfield's Lectures on Commerce will be found especially useful.

Two hours per week.

# Third or Fourth Year.

# 2. Elements of Economics.

The scope and method of Economic Science; the theory of value; the distribution of wealth, including the theories of rent, wages, interest and profits; the theory of money; international trade; principles of taxation.

Four hours per week throughout the session.

Recommended for preliminary reading: — F. A. Walker, First Lessons in Political Economy.

Text-Book: - Seligman, Principles of Economics.

Other books recommended: — Flux, Economic Principles; Keynes, Scope and Method of Political Economy; Hadley, Economics; Marshall, Principles of Economics; J. S. Mill, Principles of Political Economy, Book III; Jevons, Money and the Mechanism of Exchange; Bastable, Theory of International Trade; Sidgwick, Principles of Political Economy, Book III.

# 3. Elements of Politics.

The introductory part of the course will deal with the general principles of Political Science, the nature of the State and

the different theories of its purpose and origin.

The main work of the year will consist of a study of comparative national government. The constitutions, governments and political parties of Great Britain and the United States will be treated in detail. The governmental systems of continental Europe will also be examined.

Four hours per week throughout the Session.

Text-book:—The State (Woodrow Wilson).

Books of Reference:—Sidgwick, Elements of Politics; Burgess, Political Science and Constitutional Law; Anson, Law and Custom of the Constitution; Bryce, American Commonwealth; Bodley, France; Lowell, Governments and Parties in Continental Europe.

# Honour Courses.

# Third or Fourth Year.

4. (a) Modern Industrial Progress. Half-Course. — A study of the industrial situation in the United States and in England will be made, special attention being given to the principal manufacturing industries such as iron, cotton, etc.

Books for Reference:—Leroy Beaulieu, The United States in the Twentieth Century; Reports of the Chamberlain Tariff Commission; Chepman, The Lancashire Cotton Industry; Jevons, The Coal Question.

# 4. (b) Public Finance. (Omitted in 1906-7.)

Courses 4 and 6 may be taken as Continuation Courses by candidates for the Ordinary Degree.

#### Fourth Year.

5. HISTORY OF ECONOMIC THEORY.

The development of economic doctrine will be traced, especially in relation to the special contributions of individual writers of great prominence. A closer examination of economic theories treated of in the preceding course will be made.

Text-books:—Price, Short History of Political Economy in England; Colin, History of Political Economy.

Works of Reference:—Cossa, Introduction to the Study of Political Economy; Ingram, History of Political Economy; Sewell, The Theory of Value before Adam Smith; Cannan, History of the Theories of Production and Distribution; together with the treatises of the principal classical economists.

Four hours per week during the first half of the Session.

- 6. (a) Currency, Banking and Trade. (Omitted in 1906-7.)
  - 6. (b) LABOUR PROBLEMS. Half-Course.

The older and newer theories of wages; recent tendencies of wage-rates; compensation for industrial accidents; old-age pensions; trade unions.

Books of Reference:—Taussig, Wages and Capital; Bowley. Wages in the United Kingdom; Ashley, The Adjustment of Wages; Willoughby, Workingmen's Insurance; Webb, History of Trade Unionism; Commons, Trade Unionism and Labor Problems.

# 7. LEGISLATIVE POLICY.

This course will consist of a detailed examination of the functions exercised by the State in industrial control. Modern legislation and legislative theories will be discussed in reference to their economic effects.

Four hours per week during the first half of the Session.

Books of Reference:—Leroy Beaulieu, The Modern State; Sidgwick, Elements of Politics, chaps. IV, IX, X; Farrar, The State in Relation to Trade; The State in Relation to Labour.

- 8. (a) HISTORY OF POLITICAL THEORY. (Omitted in 1906-7.)
- 8. (b) Canada, its government and problems, political and economic.

Four hours per week during the second half of the Session.

Works of Reference:—British North America Act; Sir J. G. Bourinot, Constitutional History of Canada (Revised Edition, 1901); Dominion and Provincial Statutes; Sessional Papers of the Dominion of Canada; Fourth Census of Canada (1901); Statistical Year Book of Canada (Annual); Canadian Annual Review.

Courses 7 and 8 may be taken as Continuation Courses by candidates for the Ordinary Degree. When the subjects offered deal, as in 1906-7, partly with Political Science, partly with Economics, students will find it of advantage to have taken previous work in Economics.

9. SEMINARY IN ECONOMICS AND POLITICAL SCIENCE.

Candidates for Honours in History and Economics (Course B), will attend the economic seminary. A more careful study of the writings of leading economists and publicists will be made than is possible in connection with the ordinary courses of lectures. Reports will be prepared by the members of the class, and methods of investigation illustrated practically. The extra examination papers referred to on page 77 will have reference, in part, to the work of the Seminary.

The meetings of the Seminary will be fortnightly.

SUMMER READINGS:—During the summer vacation following the third year, Honour students are advised to study the following books:—

Adam Smith, Wealth of Nations; Ricardo, Principles of Political Economy and Taxation; J. S. Mill, Principles of Political Economy; Sidgwick, Elements of Politics; Leroy Beaulieu, The Modern State. Students are strongly recommended to obtain the advice of the members of the Department as to their summer readings.

(For Honour Courses in Economics and Political Science, see also page 77.)

# CONSTITUTIONAL LAW.

PROFESSOR: -F. P. WALTON, B.A., LL.B. (DEAN FACULTY OF LAW).

The Constitutional Law of Canada will be treated in the following order:—I. Canadian Constitutional History prior to Confederation. 2. The British North America Act, and the leading cases under it which illustrate the respective powers

of the Dominion and the Provinces. 3. The fundamentals of English Constitutional Government which form the basis of the Canadian Constitution. 4. The Cabinet System. 5. The difference between English and French practice as to responsibility of officials.

Two hours a week.

#### ROMAN LAW.

PROFESSOR: -F. P. WALTON, B.A., LL.B. (DEAN FACULTY OF LAW).

A Course is offered in Roman Law, open to third and fourth year students in Arts, and qualifying as an option for the B.A. degree. For details, see under Faculty of Law, page 206.

#### DEPARTMENT OF MATHEMATICS.

PROFESSOR:—J. HARKNESS, M.A.
ASSOCIATE PROFESSOR:—H. M. TORY, M.A., D.Sc.
ASSISTANT PROFESSORS:—

{
 MURRAY MACNEILL, M.A.
 A. S. EVE, M.A.
 SESSIONAL LECTURER:—T. RIDLER DAVIES, B.A.

#### ORDINARY COURSES.

#### First Year!

I. Plane and Solid Geometry. — The equivalent of Books IV, VI and XI of Euclid, with supplementary matter. Hall and Stevens' Euclid.

Algebra. — Hall and Knight's Elementary Algebra (omitting chapters 40-43 inclusive), or the same subject matter in similar text books.

Trigonometry.—Hall and Knight's Elementary Trigonometry; the elements of Spherical Trigonometry.

Nature and use of logarithms.

Four hours per week.

#### Second Year.

2. Geometry.—(a) Solid Geometry, continuation of the First Year; (b) Geometrical Conic Sections, Wilson's Solid Geometry and Geometrical Conics.

Algebra.—Exponential and Logarithmic series; Undetermined Coefficients; Partial Fractions; Elementary Theory of Probabilities; Elements of Determinants; Graphic Methods.

Three hours per week.

#### Third or Fourth Year.

3. Elementary Analytical Geometry; elementary parts of the Differential and Integral Calculus; simple Differential Equations.

Four hours per week.

4. ASTRONOMY. — This course is intended to give a general account of the main facts of Astronomy, and the methods by which these facts are obtained. The lectures will be illustrated, and occasional evenings will be given to work in the observatory.

Two hours per week.

#### ADVANCED COURSES.

#### First Year.

5. Lachlan's Modern pure Geometry; Hall and Knight's Advanced Algebra; Burnside and Panton's Theory of Equations (selected course); Trigonometry, as in ordinary course; Higher Trigonometry, Lock.

Four hours per week.

### Second Year.

6. Analytical Geometry.—Smith's Conic Sections.

DIFFERENTIAL AND INTEGRAL CALCULUS.—Lamb's Infinitesimal Calculus.

Four hours per week.

# Honour Courses.

## Third Year.

- 7. Selected topics in Differential and Integral Calculus.
- 8. Differential Equations.
- 9. Geometry of Three Dimensions.
- 10. Vector Analysis.

In addition students reading for Honours will be required to take course 6 and selected topics from course 5, under Physics, see page .

## Fourth Year.

The courses given will be selected from the following:—

II. Introduction to the Theory of Functions.

12. Elliptic Functions.

- 13. Lectures in connection with Scott's Modern Analytic Geometry and the early chapters of Salmon's Higher Plane Curves.
- 14. Lectures on Modern Geometry, based on Reye's Geometry of Position.

In addition students reading for Honours will be required to take the seminary topics of course 5, under Physics, (see page 127).

(For Honour Courses in Mathematics, see also page 78.)

## Post-Graduate Courses.

15. A Special Course for Graduates and Advanced Students may be given by Dr. Tory during the Session 1906-7.

APPLIED MATHEMATICS. — The object of the course (if given) will be to give the student an introduction to those parts of Mathematics which are indispensable for the study of Advanced Physics and allied subjects. The course will be mainly concerned with the partial differential equations which occur in Mathematical Physics. Among the topics treated will be the following: — The Mathematical Theories of Attraction and Potential, with their applications; Fourier's Series; Zonal and Spherical Harmonics and Bessel's Functions.

The applications to physical problems will be illustrated by numerous examples.

#### DEPARTMENT OF PHYSICS.

PROFESSORS: - { JOHN COX, M.A., LL.D. E. RUTHERFORD, M.A., D.Sc., F.R.S.

Associate Professor:—Howard T. Barnes, D.Sc.

Demonstrators: 

R. K. McClung, B.A. (Cantab.), M.A., D.Sc.

Senior Demonstrator.

H. L. Bronson, Ph.D. (Yale).

R. W. Boyle, M.Sc.

## Ordinary Courses.

## First Year.

I. Physics.—This course has two objects: (I) to give the minimum acquaintance with Physical Science requisite for a liberal education to those whose studies will be mainly liter-

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other branches of Natural Science, and to the more detailed courses in Physics in the third and fourth years. Only the most important principles in each branch of the subject will be treated, as far as possible, with reference to their historical development and mutual relations; and they will receive concrete illustration in the study of the principal instruments in daily use in the laboratory. Two illustrated lectures will be given per week. During the session each student will be required to attend in the laboratory occasionally, and make measurements involving the use of the following instruments:

—Balance, Pendulum, Barometer, Thermometer, Sonometer, Telescope or Microscope, Tangent Galvanometer, Wheatstone's Bridge.

Outline of Syllabus. The scope and method of Science, primary phenomena ("states and properties of matter"), motion, velocity, acceleration, laws of motion, momentum, energy, work; the parallelogram law for velocities and forces, equilibrium and the simple machines; uniform circular motion, vibration, the pendulum, fluid pressure, the barometer, specific gravity; summary of *Mechanics*, indicating the principle of the conservation of energy; the missing energy traced in:—

- (1) Sound:—Nature of wave motion, intensity, pitch and quality of musical notes; the stretched string and organ pipe; resonance.
- (2) *Heat*:—Temperature and the thermometer; the calorimeter, fusion and vaporisation; laws of Boyle and Gay-Lussac; the mechanical equivalent; application of conduction, convection and radiation to common problems of climate, ventilation, etc.
- (3) Light: Reflection, refraction, the spherical mirror, prism, lens, microscope, telescope, spectroscope, polariscope; principle of interference and sketch of the undulatory theory.
- (4) Electricity and Magnetism: The electrophorus, the modern induction machine, the condenser: Coulomb's Law of Force: the idea of potential: the quadrant, electrometer; atmospheric electricity; magnetic pole, moment, field and law of force; the compass and terrestrial magnetism; effects of current; the voltameter and storage cell: the galvanometer: heating effects; simple batteries: Ohm's Law; units and

measurement of current resistance, electromotive force; mutual mechanical effects of conductors and magnetic fields; principle of the electric motor; the electro-magnet; induction of currents, and principle of the dynamo; applications to telegraph, telephone, lighting, and supply of power.

Conclusion. — Restatement of principle of Conservation of

Energy in complete form; dissipation of Energy.

Two hours a week. Text-book:—Carhart and Chute.

## Third Year.

2. Experimental Physics.—(First Course.)—Laws of energy, sound, light and heat. Text-books:—Deschand, Part IV, or Ganot or Jones; Heat (Wright's, Longmans).

Lectures fully illustrated. Two hours a week; with Laboratory Course, three hours a week.

Laboratory Manuals.—Tory and Pitcher; Chandler.

Sound.—Velocity of sound; determination of rates of vibration of tuning forks; resonance; laws of vibration of strings.

LIGHT. — Photometry; laws of reflection and refraction; indices of refraction; focal lengths and magnifying powers of mirrors, lenses, telescopes and microscopes; the sextant, spectroscope, spectrometer, diffraction grating, optical bench and polariscopes.

HEAT.—Construction and calibration of thermometers; melting and boiling points; air thermometer; expansion of solids, liquids and gases; calorimetry; specific and latent heats; laws of vapour pressure; radiation; the mechanical equivalent of heat.

## Fourth Year.

3. Experimental Physics.—(Second Course.) — Electricity and Magnetism. Text-book:—S. P. Thompson. Lectures fully illustrated. Two hours a week; with Laboratory Course, three hours a week. Laboratory Manual.—Tory and Pitcher.

Measurement of pole strength and moment of a magnet; the magnetic field; methods of deflection and oscillations; comparison of moments and determination PHYSICS.

of elements of earth's magnetism; frictional electricity; current electricity:—complete course of measurements of current strength, resistance and electromotive force; calibration of galvanometers; the electro-dynamometer; comparison of galvanometers; the electrometer; comparison of condensers; electromagnetic induction; discharge of electricity through gases; radio-activity; electrical waves.

N.B. — For Advanced Courses intended for Electrical Engineering students and graduates pursuing the study of Physics, see under Courses in Applied Science, page 193.

# Third or Fourth Year.

4. Mechanics and Hydrostatics.—Two hours a week.

## HONOUR COURSES.

## Third and Fourth Years.

- 5. Analytical Statics; Dynamics of a particle; rigid dynamics; hydromechanics.
- 6. Advanced Courses in heat, optics and electricity. A short course in Physical Chemistry.

(For Honour Courses in Mathematics and Physics, see also page 78.)

# Post-Graduate Courses.

7. Special courses for graduates and advanced students, selected from the following, will be given during the Session 1906-7, at hours to be arranged.

By Prof. Cox.—The relation of Optics and Electricity.

By Prof. Rutherford.—The processes occurring in Radio-active Elements.

By Dr. Barnes.—On Electrical Standards.

By Dr. Tory.—On Applied Mathematics. (See page 124, course 15.)

## DEPARTMENT OF CHEMISTRY.

Professors:—(B. J. Harrington, M.A., Ph.D., LL.D. J. Wallace Walker, M.A., Ph.D

Assistant Professor:-Nevil Norton Evans, M.A.Sc.

Lecturer: - Douglas McIntosh, M.A., D.Sc.

W. S. Hutchinson, M.Sc.

S. J. LLOYD, B.Sc.

DEMONSTRATORS:—{ J. W. INCE, M.A.

R. S. BOEHNER, B.Sc. M. C. COLL McFee, B.A.

LECTURE ASSISTANT:—ANNIE L. MACLEOD, M.Sc.

## ORDINARY COURSES.

#### Second Year.

I. GENERAL CHEMISTRY.—A Course of lectures on Elementary Chemical Theory, and on the principal elements and their compounds. The lectures are fully illustrated by means of experiments.

Text-book: - Holleman's Text-book of Inorganic Chemistry (Translation by Cooper). For Reference:— Bloxam's Chemistry.

Three hours a week.

ELEMENTARY PRACTICAL CHEMISTRY. — This course is compulsory for all undergraduates taking the above course of lectures. The work includes experiments illustrative of the laws of chemical combination, the preparation of pure chemical compounds, and elementary Qualitative Analysis.

Four hours a week.

# Third Year.

2. INORGANIC CHEMISTRY.—A course on special departments of Inorganic Chemistry.

One hour a week.

3. Elementary Organic Chemistry.—An elementary course of lectures on Organic Chemistry open to students in Biology and compulsory for students intending to take the advanced course on Organic Chemistry in the fourth year.

Text-book. - Holleman's Text-book of Organic

Chemistry.

One hour a week.

4. ADVANCED PRACTICAL CHEMISTRY.—Lab ratery practice in methods of gravimetric and volumetric analysis, during the first term, and preparation of simple organic substances in the second term.

Text-books.— Talbot's Quantitative Chemical Analysis and Holleman's Laboratory Manual of Organic Chemistry.

Six hours a week.

Two hours a week.

#### Fourth Year.

- 5. Organic Chemistry.—A systematic course of lectures on Organic Chemistry, including the analysis of organic substances, calculation of formulæ, determination of malecular weights, polymerism, isomerism, etc., followed by a discussion of the more important derivatives of the aliphatic and aromatic series of comparies. Two hours a week.
- 6. PRACTICAL ORGANIC CHEMISTRY. A complete course on the preparation and analysis of Organic Substances, with determinations of molecular weights, etc.
- 7. Physical Chemistry.—The lectures on Physical Chemistry are divided into two parts. In the first term they include a study of such physical properties of gases, liquids, and solids as are known to depend upon their chemical constitution, therm the mistry, and the law of mass action. The second term is devoted to Electrochemistry. The lectures will be based upon the applications of the gaseous laws to solutions.
- 8. PRACTICAL PHYSICAL CHEMISTRY. Laboratory work will include the various methods of determining the processing entering entering
- 9. Mineral Analysis.—A course of laboratory work comprising advance I quantitative analysis and investigation of the constitution of mineral species.

## HONOUR COURSES.

#### Third Year.

Honour students in the third year will be required to take all the ordinary courses of that year and in addition do some extra reading and laboratory work.

## Fourth Year.

Honour students in the fourth year will take courses 5, 6, 7 and 8 or 7, 8 and 9.

(For complete Honour Courses in Chemistry, see page 78.)

#### MINERALOGY.

Professor:—B. J. Harrington, M.A., Ph.D., LL.D. Demonstrator:—Richard P. D. Graham, B.A.

Honour Courses.

#### Third Year.

- I. Mineralogy.—Lectures and demonstrations illustrated by models and specimens in the Peter Redpath Museum and the Macdonald Chemistry and Mining Building. Among the subjects discussed are: crystallography; physical properties of minerals dependent upon light, electricity, state of aggregation, etc.; chemical composition, calculation of mineral formulæ, quantivalent ratios, etc.; principles of classification, description of species. Two hours a week.
- 2. Determinative Mineralogy. Laboratory practice in blow-pipe analysis and its application to the determination of mineral species. This work is carried on in the laboratory provided for the purpose in the Chemistry and Mining Building.

Thursday, 2 to 5 p.m.

# Fourth Year,

3. Mineralogy (In continuation of No. 1). — Description of species, particular attention being paid to those which are important as rock constituents and to the economic minerals of Canada; measurement of the angles of crystals with the reflection goniometer; projection of crystal forms; calculation of axial ratios of crystals; drawing of crystal forms; use of the polarising microscope, axial angle apparatus, etc.

First term, eight hours a week. (For Honour Courses, see also page 78.)

#### DEPARTMENT OF GEOLOGY.

PROFESSOR:—FRANK D. ADAMS, D.Sc., PH.D. DEMONSTRATOR: J. AUSTEN BANCROFT, M.A.

## ORDINARY COURSES.

#### Third Year.

I. General Geology.—The lectures will embrace a general survey of the whole field of Geology, and will be introduced by a short course in Mineralogy. Especial attention will be devoted to Dynamical Geology and to Historical Geology, including a description of the fauna and flora of the earth during the successive periods of its past history.

The lectures will be illustrated by the extensive collections in the Peter Redpath Museum, as well as by models, maps, sections and lantern views. There will be an excursion every Saturday until the snow falls, after which the excursion will be replaced by a demonstration in the Museum.

Text-book:—Scott, An Introduction to Geology.

Books of Reference:—Dawson, Hand-Book of Geology; Dana, Manual of Geology.

Three hours a week throughout the year, with additional excursions and demonstrations as above stated.

## HONOUR COURSES.

## Third Year.

# (In Geology and Mineralogy.)

In the third year, students pursuing the Honour Course will take the ordinary work (General Geology, 1).

(For Mineralogical portion of this course, see pp. 78 and 130.)

## Fourth Year.

2. Petrography.—The modern methods of study employed in Petrography are first described, and the classification and description of rocks are then taken up.

One lecture a week during the first term. One afternoon a week throughout the year will be devoted to special microscopical work in the Petrographical Laboratory.

Text-book:—Harker, Petrology for Students.

Books of Reference: — Rosenbusch, Mikroskopische Physiographie, and Zirkel, Lehrbuch der Petrographie.

3. A. PALÆONTOLOGY.—An extension of the Palæontology of Course 1, with special studies of some of the more important groups of fossils.

One lecture a week during the second term and one demonstration a week, with special studies in the Peter

Redpath Museum.

Books of Reference:—Nicholson and Lydekker, Manual of Palæontology; Zittel & Eastman, Text-Book of Palæontology.

or

5. B. Physiography. — A description of land forms with reference to their origin, classification, drainage, development, climatic and human controls.

The physical features of Canada will be described

during the latter half of the course.

The course will consist of lectures, demonstrations, and laboratory work, and will be illustrated by maps, models, and lantern slides.

Two hours a week during the first term.

Books of Reference: — Davis, Physical Geography; Mill, The International Geography.

4. Ore Deposits, Economic Geology and Practical Geology.—The nature, mode of occurrence and classification of ore deposits will first be taken up. A series of typical occurrences will then be described and their origin discussed — the more important non-metallic materials—e.g., fuels, clay, abrasive materials, building stones, etc., will be similarly treated, as well as questions of water supply, artesian wells, etc. The methods employed in carrying out geological and magnetic surveys and in constructing geological sections will then be taken up with special studies in folding, faulting, etc.

The course will be illustrated by maps, models, lan-

tern slides and specimens.

Four lectures a week throughout the second term.

Text-books:—Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States and Canada; Philips and Louis, A Treatise on Ore Deposits; Beck, Ore Deposits.

Books of Reference:—The Reports of the Geological Survey of Canada and the Monographs of the U.S. Geological Survey.

5. Canadian Geology.—A general description of the Geology and Mineral Resources of the Dominion.

One lecture a week during the first term.

Text-book: - Dawson, Hand-book of Geology.

Books of Reference:—The Reports of the Geological Survey of Canada.

6. Geological Colloguium.—A discussion each week of some geological topic, references to the literature of which have been given by the Professor in the week preceding. The course is intended to give students some acquaintance with geological literature, as well as a wider knowledge of the great principles which underlie the Science.

One hour a week in second term.

7. Geological Survey.—Candidates for Honours in the fourth year will also undertake, under the direction of the Demonstrator in Geology, a geological survey of some suitable area selected for that purpose. This survey will occupy two weeks, and will be made either at the close of the third year or immediately before the opening of the regular work of the fourth year, as may be arranged by the Professor of Geology. The preparation of a geological map of the surveyed area, the examination of the specimens collected, and the writing of a detailed report upon the area, will form part of the work of the fourth year.

N.B.—A large amount of additional private reading will also be required of candidates for Honours.

(For Honour Courses in Geology, see also page 78.)

#### DEPARTMENT OF BOTANY.

PROFESSOR:—D. P. PENHALLOW, D.Sc. ASSISTANT PROFESSOR:—C. M. DERICK, M.A.

## ORDINARY COURSES.

#### Second Year.

I. ELEMENTARY BIOLOGY.—Second half session. A course in the general morphology of plants embracing a discussion of the general principles of morphology and classification, respiration, photosynthesis, nutrition, reproduction, symbiosis and adaptations, as also the relations of plants in geological time. These studies will be illustrated by means of special types taken from the principal groups.

This course is designed with special reference to those who may not be able to carry such work beyond the limits of an elementary course, and as a basis for more specialized work

in the third and fourth years.

Two lectures and two laboratory periods each week.

For the first half of this course, see Zoology 1A, page 137.

## Third Year.

2. Special Morphology.—This course is designed to give a comprehensive knowledge of plant structures and relationships. The principles of development will be illustrated by type studies which may also serve as the basis of more special work in Bacteriology, Physiology, Ecology, or Palæobotany. It comprises:—

(a) First Half-Session.—During the autumn term, attention will be directed to a study of the general histology of the plant, with special reference to the seed plants, as a basis for the more advanced work of the fourth year; and also to differential reactions, methods of staining, imbedding, section cut-

ting and general technique.

This course will be especially adapted to chemists as applied to a study of food adulterants, etc.; to those who are intending to follow a medical course, as a preparation for animal histology, and it will be required of all who elect the course in the fourth year.

The course pre-supposes familiarity with the optics of the

microscope as given in Physics 1. (3) of the first year.

(b) Second Half-Session.—Critical studies of the Thallophyta by means of selected types designed to illustrate the origin of organs, the origin and development of sex, the division of labour and the general laws of development.

Two lectures and two laboratory periods each week through-

out the session.

## Fourth Year.

3. Special Morphology.

(a) The complete study of a selected series of types, illustrating the structure, origin and relationships of the Bryophytes, and Pteridophytes.\*

(b) The special morphology of the Seed Plants as represented by types illustrative of the principal groups, with special reference to relationship, development and adaptations.

Students entering upon this course will be required to present

qualifications equivalent to the course of the third year.

Two lectures and two laboratory periods each week throughout the session.

For the work of the third and fourth years, each student will be required to provide himself with a laboratory drawing book of specified form, and with necessary pencils, slides and cover glasses.

4. Systematic Botany. — A special course embracing herbarium work and the systematic study of the seed plants with reference to the determination of species, their environment and mutual relations. These studies will be prosecuted with special reference to a field knowledge of the ferns and flowering plants in the neighbourhood of Montreal.

This course is designed to complete and round out the study of the higher plants as given in the courses on Special Morphology (2 and 3). Students specializing in Botany will be required to follow this as part of the ordinary course of the fourth year. The course is also open to teachers of schools and to others who may have gained a knowledge equivalent to that represented by Gray's Structural Botany.

Two laboratory periods each week throughout the session, with field days as may be arranged for.

<sup>\*</sup> Students taking Honours in Geology and Minoralogy will also take B tany 3 (a) during the first half of the session.

5. Structure of Woods.—This course is designed to meet the special requirements of students proceeding to the study of forestry. It will deal with the practical study of the principal woods employed for structural purposes, their structure, modification under conditions of decay, mechanical stress, etc., determination of age, methods of preparing material for microscopical examination.

Laboratory, two hours per week throughout the session.

Honour Courses.

(In Biology.)

## Third and Fourth Years.

For work in Zoology, see page 139.

6. Candidates for Henours in the third and fourth years will, in addition to the ordinary work in Botany of each year, take a special course of reading under the direction of the professor, and write weekly themes upon assigned topics.

(For Honour Courses in Biology, see also page 79.)

# B.Sc. Course (Ordinary).

## Third Year.

7. Students proceeding to the degree of B.Sc. will be required to take the ordinary course of the third year Arts, (2) and, if specializing in Botany, also the Honour course in that subject for that year.

Two lectures and two laboratory periods each week throughout the session.

## Fourth Year.

During the fourth year, students proceeding to the degree of B.Sc. will be required to pursue special studies in extension of the work of the fourth year Arts, (3), in accordance with such plan as may be adopted by the B.Sc. Committee at the time of his entrance upon that year.

# Courses Leading to Forestry.

Students who contemplate the adoption of Forestry as a profession, are advised to take the following course of study as a preparation for graduate work at a Forestry School. This

course is framed with special reference to those who may be proceeding to the degree of B.Sc., but for those proceeding to the degree of B.A., such modifications will be made by the Advisory Committee as may conform to the requirements for that degree.

In the first and second years, Physics (1) and Elementary Biology will be regarded as essential elements of the course. Third Year.

Special Morphology of Plants (2).

Honours readings, with Collequia (Botany 5).

Zuology (2).

Geology (1). English Composition (4C).

Fourth Year.

Special Morphology of Plants (3).

Systematic Botany (4).

Physiology and Ecology (6).

Structure of Woods (5).

Entomology (First Half Session).

Mammals and Fishes (3Bb. Second Half Session).

# DEPARTMENT OF ZOOLOGY.

PROFESSOR: -E. W. MACBRIDE, M.A., D.Sc., F.R.S. LECTURER:—J. STAFF RD. M.A., PH.D. DEMONSTRATOR.—J. C. SIMISON.

ORD. NARY COURSES.

Second Year.

IA. ANIMAL BIOLOGY.

This course consists of a careful study of the laws of Biology as illustrated by a selected series of types. Special stress is laid on the elements of Vertebrate Anatomy and Physiology, to the study of which most of the time is devoted. The types dealt with are Amæba, Paramæcium, a Flagellat. Hydra, Lumbricus Amphioxus, Scyllium, Rana.

This course along with the corresponding course in Botany constitutes the course in general Biology. In lieu of Botany, however, 1B can be taken by students taking the combined sixyear courses in Arts and Medicine leading to the degrees of B.A. and M.D. and of B.Sc. and M.D., provided that in this case the Botany required for Medical students is taken in the Autumn term.

Two lectures and two demonstrations a week during the first half of the Session.

## IB. CONTINUATION COURSE IN ANIMAL BIOLOGY.

This course comprises a further study of Vertebrate Anatomy including a detailed study of the tissues. The type selected is the Rabbit of which the osteology and gross anatomy are first studied and then the histology of the tissues. The practical work includes instruction in the staining and mounting of sections.

Two lectures and two demonstrations a week during the

second half of the Session.

## Third or Fourth Year.

## 2. GENERAL ZOOLOGY.

This course consists of a study of the principal classes of animals, special attention being given to the Invertebrata. Fossil Invertebrata are studied along with the living types. Two lectures and two demonstrations a week throughout the Session.

For courses 1A, 1B, 2 and 4B a study of the text-book, Shipley and MacBride's Zoology, is required, and short weekly essays on the subjects of the course may also be called for.

## ADVANCED COURSE.

## Second Year.

# 3. Animal Physiology.

This course includes a study of the functional activities of Vertebrate Animals and is illustrated by some elementary demonstrations. Two lectures and one demonstration a week during the second half of the Session.

This course is to be taken by those students who intend to qualify for the Ontario Specialists' Certificate in Biology. It is recommended to all who intend to proceed to Honours in Biology.

# CONTINUATION COURSES.

#### Fourth Year.

# 4A. GENERAL EMBRYOLOGY.

This course comprises a study of the typical form of development and its principal modifications in every class in the animal kingdom.

Two lectures and two demonstrations a week throughout the Session.

Text-book for Reference: — Korschelt and Heider, Comparative Embryology.

4B. Special Zoology.

This course includes:-

- (a) A special study of parasitic animals and their relation to disease during the first term.
- (b) A comparative study of the osteology and anatomy of Vertebrata during the second term.

Two lectures and two demonstrations a week throughout the session.

Students desiring to continue the study of Zoology during the fourth year may take either of the above courses. 4B may be taken as a third year subject by students taking the six-year course in Arts and Medicine leading to the degrees of B.Sc. and M.D.

## Special Courses.

5. A special course in Vertebrate Embryology, consisting of 8 lectures and 8 demonstrations, is given during the first half of the Medical Spring term (latter half of April and beginning of May) for Medical students, but the course is open also to students in Arts who have taken at least the course 1A.

# SUMMER COURSE.

6. A special course in Elementary Biology covering the same ground as IA is given during the month of May and the beginning of June. This course is accepted by the Faculties of Arts and Medicine as equivalent to IA.

# Honour Courses.

Students proceeding to Honours in Biology shall take Chemistry and Biology in the second year, and shall, during the third year (in addition to the work prescribed by the Professor of Botany), take course 2. They shall, in addition, pursue the study of Darwin's "Origin of Species," under the supervision of the Professor for one hour a week during the first term (in addition to the work required of ordinary students), and during the second term they shall take course 1B involving two lectures and two demonstrations a week (in addition to the ordinary work).

In all cases they shall take in the third year, in addition, the ordinary course in Geology.

#### Fourth Year.

Students proceeding to Honours in Biology shall during the fourth year take courses 4A and 4B and may be required to write weekly essays on the subjects of these courses.

(For Honour Courses in Biology, see also page 79.)

## B.Sc. Course.

Students proceeding to the degree of B.Sc. will be required to take 2.

If they intend to specialize in Zoology in the fourth year, they shall, in addition, take the Honours work prescribed for the third year. In the fourth year they shall take courses 4A and 4B and, in addition, such extra reading and laboratory work as may be prescribed by the Faculty.

A special fee of \$2.50 is charged against the caution money of each student attending the Zoological laboratory, in order to cover the cost of instruments and laboratory note-book which are supplied to him and become his property. A student attending the laboratory for a second time is not called on to pay this fee.

#### METEOROLOGY.

SUPERINTENDENT OF OBSERVATORY: -C. H. MCLEOD, MA.E.

Instruction in meteorological observations will be given in the Observatory at hours to suit the convenience of the senior students.

Certificates will be granted to those students who pass a satisfactory examination on the construction and use of meteorological instruments and on the general facts of Meteorology.

#### PEDAGOGY.

LECTURER: S. P. ROBINS, M.A., LL.D.

Lectures on this subject will be given in the Normal School to undergraduates of the third and fourth years, who wish to obtain the Provincial Academy Diploma.

Lecture hours, Tuesdays and Fridays, 2 to 3.

## COURSE FOR THE DIPLOMA OF COMMERCE.

It has been decided to establish a Commercial Course in the Faculty of Arts to extend over two years. The nature of the Matriculation examination and the subjects to be studied in each year are as follows:—

## MATRICULATION EXAMINATION.

- (1) The Ordinary Matriculation examination for the B.A.
- 2) The Ordinary Matriculation examination for the B.Sc. Course.

(3) An examination consisting of

- (a) The *Preliminary* subjects of the present Matriculation examination and
  - (b) The following Final Subjects, viz.:

History and Geography

English Literature

French, including oral examination (pass standard 50%)

Algebra, Part I. Geometry, Part I.

One of the following, viz.; Physiography, Botany, Chemistry, Physics.

This examination (3) will not qualify for any degree.

## FIRST YEAR COURSE.

Subjects and hours per week;

English:—Essays, précis-writing, and speaking in public, with some didactic lectures. 4 hours.

History:-Modern Political History-British. 2 hours.

Mathematics:—Existing First Year Course, substituting a special course for Trigonometry. 4 hours.

French:—(including Commercial French 1 hour). 5 hours. Physics:—Dealing especially with practical applications.

# SECOND YEAR COURSE.

English:—As above. French:—As above.

History:- Historical Geography and Canadian History.

Geography:—Physical and Commercial.

Economics:—Descriptive Economics.

Accountancy:

Chemistry: The Chemistry of the Second Year.

# REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS.

1. (a) One year's resident graduate study at McGill, or

(b) Two or more years of private work; the amount of such work required may be stated to be the equivalent of one

year of academic study.

- 2. One, two or three subjects may be taken. By "subjects" is meant those branches of study designated as subjects in the list set down in the curriculum for the third and fourth years of the undergraduate course. "Classics" may be counted as a single subject, if not more than two subjects are taken.
- 3. One of these subjects shall be designated as the major subject and special attention shall be devoted to it. It must be a subject which the student has already studied in his undergraduate course, and the work required in it will represent an attainment in knowledge far in advance of that required for the B.A. degree. The minor subject, or subjects, may be selected from those of the undergraduate course of the third or fourth years, which have not already been taken by the candidate. Not more than one-third of the candidate's time for the year shall be devoted to these subjects. The student shall pass an examination in each of the subjects of his course.

4. He shall also present a thesis on some topic connected with his major subject. The title of his thesis must have been previously submitted to the Head of the Department concerned and to the Board of Graduate studies, for their approval. The thesis shall show evidence of distinct ability in dealing with the subject selected, and shall also display

good literary style.

5. Graduates possessing a Bachelor's Degree, who act as demonstrators or tutors in the University for the entire session, may proceed to the degree of M.A., and, in so doing, may at the discretion of the Department with which they are connected and the Board of Graduate studies, omit a portion of the course of study. They shall, however, be called upon to pass an examination on the course of study which they follow and shall in all cases submit the thesis prescribed for that degree. If, however, they desire this year's work to count as one of the three years of study required for the Ph.D. degree, they must make their course of study conform to the Ph.D. requirements.

N.B.—The first year's course of study for the Ph. D. degree will cover the requirements of the M.A. course, but, if such a course of study be followed, a thesis must be submitted and approved before the degree of M.A. is conferred. If, however, the student continues his course of study and takes the Ph. D. degree, the degree of M.A. will be conferred with the degree of Ph.D., in which case no special M.A. thesis will be required.

The requirements for the Degree of Master of Science are somewhat similar to those laid down (as above) for Master of Arts.

# REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

I. The candidate must hold a degree of B.A. or B.Sc.

from McGill University, or its equivalent.

2. Three years of resident graduate study is required. The Committee may, however, in exceptional circumstances and on the recommendation of the Head of the Department, permit the candidate to take a portion of his course at some other recognized seat of learning; provided that he take one continuous year at McGill University.

3. The candidate must select one major and one minor subject. The minor subject selected must be related to his

chief line of work.

N.B.—The minor subject shall have devoted to it about one-quarter of the instruction given during the entire course (omitting the thesis from consideration), i.e., an amount of work equivalent to the entire work for half of one year.

4. In addition, a reading knowledge of French and German

shall be required.

5. The course to be arranged as follows:-

# FIRST YEAR.

(a) A special course of graduate instruction shall be given in the major subject.

(b) The candidate may be required, in addition, to take

certain courses of undergraduate work.

(c) A portion or all of the work required in connection with the minor subject, may be completed.

If the candidate has not already passed his examination in French and German, he must satisfy the Committee that he has a reading knowledge of these languages, before he will be permitted to enter upon the second year of his course.

## SECOND YEAR.

(a) Instruction by formal lectures or colloquia on the major subject shall be given.

(b) The minor subject shall be finished, if not already

disposed of.

(c) The thesis shall be commenced before the end of this year.

## THIRD YEAR.

(a) The thesis shall be completed.

(b) The student shall follow an extended course of study under direction of the professor, with more or less frequent collequia in connection with the same.

Note I. The Ph.D. degree shall carry with it the M.A. degree if this latter has not already been taken.

Note II. The examination on the chief subject shall not cover merely the formal courses of instruction which have been taken. In it the candidate must show that he possesses a good general knowledge of the whole science or branch of learning which he has selected as his chief subject. A similar general, although less detailed, knowledge will be required in the case of the minor subject.

The examination will be viva voce and shall be conducted in the presence of a Committee. A written examination may also be required.

Note III. The thesis must display original scholarship, or show marked ability to conduct research.

If the thesis be accepted, 200 printed copies of it must be deposited with the University Librarian, before the candidate shail receive his diploma. If, on account of expensive illustrations, the cost of printing these copies is very great, the Committee may direct that a smaller number be required.

# INFORMATION FOR STUDENTS IN APPLIED SCIENCE.

THE SESSION 1906-1007 WILL OPEN ON WEDNESDAY, SEPTLMBER 19TH, 1906. STUDENTS ENTERING THE UNIVERSITY WILL REGISTER AT THE REGISTRAR'S OFFICE ON THE 14TH, 15TH, 17TH OR 18TH; STUDENTS PREVIOUSLY ENROLLED WILL REGISTER ON THE 19TH. FIELD WORK IN SURVEYING WILL COMMENCE ON MONDAY, AUGUST 20TH, 1906.

Particulars regarding the following points will be found by referring to the pages mentioned:—

		-
Admission from other universities	. 2	5
Admission of Partial Students	. II	
Attendance		
Exhibitions and Scholarships	. 38	,
Fees	. 52	,
Matriculation †	. 15	-
Medals and Prizes	11	

For Time Tables of Lectures and Examinations, see first part of Calendar.

#### LEGREES AND EXAMINATIONS.

# (I) Degrees.

The degrees conferred by the University upon such undergraduates of the Faculty as fulfil the conditions and pass the examinations hereinafter stated are, in the first instance. "Bachelor of Architecture, (B. Arch.) and Bachelor of Science" (B.Sc.), mention being made in the diploma of the particular Course of study pursued, and, subsequently, the degrees of "Master of Science" (M.Sc.), and "Doctor of Science" (D.Sc.). (For regulations, see pp. 56 to 53.)

<sup>\*</sup> For complete registration regulations see page 47.
† Full information regarding entrance can be obtained from the University
Registrar and, in England, from J. Stuart Horner, Esq., of Messrs. John Birch & Co.
3 London Wall Buildings, London, E.C.

Particulars regarding the combined course in Arts and Applied Science leading to the degrees of B.A. and B.Sc. (Applied Science) in six years, are given on pp. 82 and 83.

By a resolution of the Institution of Civil Engineers (England) the holders of the degree of B.Sc., in the courses of civil, electrical, mechanical, and mining engineering, and transportation, are exempted from the examination for associate membership (A. M. Inst. C. E.) of the Institution.

# (2) Examinations.

- I. Sessional examinations are held in all subjects. In addition, there are Christmas examinations in certain subjects, and class examinations are held from time to time, at the option of the Professor.
- 2. Credit will be given in the sessional standing for class examinations held during the session, and also for the Christmas examinations.
- 3. Students who have failed in an examination may regain their standing by passing a supplemental examination at a time appointed by the Faculty.\* Unless such supplemental examination is passed, students will not be allowed to proceed to any subsequent examination in the subject. A second supplemental examination will not be granted unless under exceptional circumstances, to be investigated in each case by the Faculty.
- 4. Students who fail to obtain their session, and who in consequence repeat a year, will not be exempted from examination in any of those subjects in which they may have previously passed, except by the express permission of the Faculty. Application for such exemption must be made at the commencement of the session.

<sup>\*</sup> In 1906, first year supplemental examinations will be held at the close of the summer session, for students who have attended the summer classes; on August 15th, 16th and 17th for all those taking Engineering Courses; and in September for those taking the Architectural and Chemistry Courses. Students in the Engineering Courses are required to clear off all first year supplementals (except as provided in the latter part of Regulation 3, above) before being admitted to the surveying school which begins on August 20th.

#### SPECIAL INFORMATION,

- I. Students in Applied Science may, on application to the Faculty, take such Honour Courses in the Faculty of Arts as are practicable.
- 2. Undergraduates in Arts of the second and third years, or graduates in Arts of any university, entering the Faculty of Applied Science, may, at the discretion of the professors, be exempted from such lectures in that Faculty as they have previously attended as students in Arts.
- 3. Admission of Women. The conditions upon which women are admitted into any of the courses in the Faculty of Applied Science may be obtained on application to the Dean.
- 4. Certificates may be given to students who have passed through any of the special courses attached to the curriculum.
- 5. The headquarters of the Canadian Society of Civil Engineers are located in Montreal. Students in all departments of engineering are strongly recommended to become student members of the Society, which they can do on payment of a fee of \$2.00. They are then entitled to the two volumes of "Transactions," which are annually published, and to the use of the Society's rooms on Dorchester Street. They also have opportunities of meeting the prominent engineers of the country and of being present at the fortnightly sessions, at which papers are read by leading members of the Society on current engineering subjects and works of construction.

During the winter there will be a special series of students' meetings, at which papers, illustrated by lantern slides, will be read by well-known engineers. Students may also compete for the prizes which are offered by the Society (see p. 40).

6. Students in Mining and Metallurgy are strongly recommended to become members of the McGill Mining Society, which, although a student body (see p. 190), is affiliated with the Canadian Mining Institute, the headquarters of which are in Montreal. Members of this Society receive the Transactions of the Institute without extra expense, and are entitled to attend all meetings and to compete for the prizes offered (see p. 44).

#### COURSES OF INSTRUCTION.

The instruction in this Faculty is designed to afford a thorough training of a practical as well as a theoretical nature, in the following branches of Applied Science:—

1.—Architecture.

II.—CHEMISTRY.

111.—Civil Engineering and Surveying.

IV.—ELECTRICAL ENGINEERING.

V.—MECHANICAL ENGINEERING.

VI.—METALLURGY.

VII.—MINING ENGINEERING.

V111.—Transportation.

The regular work of each session in Applied Science will end about the middle of April, at the close of the sessional examinations. The summer work will commence as soon as practicable thereafter, and will be continued for six weeks (see Reg. 2, below).

#### SUMMER WORK.

1. All undergraduates entering the second year (excepting those taking the Practical Chemistry Course), students in the Civil and Mining Engineering Courses entering the third year, and students in the Civil Engineering Course entering the fourth year, are required to be in attendance at the Surveying School on the 20th August, when the fieldwork in Survey-

ing and Geodesy will commence. (See page 194.)

2. Undergraduates in the Mechanical, Electrical and Metallurgical Courses are required to attend a summer session of about six weeks between the second and third years. The work to be done in the first two of these courses is as follows:—Mechanical Drawing (Machine Design and Machine Drawing), 10 hours per week; Physics and Physical Laboratory Work, 11 hours per week; Shopwork (Smith shop and Foundry), 11 hours per week.

3. Undergraduates in the Mining and Metallurgical Courses are required to attend the Summer School in Mining, held between the third and fourth years (four to six weeks of fieldwork). The school is held in May and June. (See page 190.)

4. During the summer vacation following the close of each session, all students entering the third and fourth years are required to prepare a thesis on a subject specified by the Fa-

culty, or make a report on some practical work in course of construction. The marks given for these theses are added to the results of the sessional examinations, but no credit will be given for any report handed in after October 2nd.

#### GENERAL OUTLINE OF COURSES.

The curriculum, as laid down in the following pages, may be changed from time to time as may be deemed advisable by the Faculty. The work prescribed for the first two years is the same in all courses, except in Practical Chemistry and in that leading to the degree of Bachelor of Architecture.

The subjects of instruction in these years for all courses, except those above-named, and the number of hours per week devoted to each, are as follows:—

#### FIRST YEAR.

	Hrs.	Н	: S.
Descriptive Geometryp. English(p. Freehand Drawing(p. Lettering	176), 2 177), 3	Mathematics, 1, 2, 3, 8. (p. 179),  Physics	2 4.1
	SECOND	Year.	

Hrs.		HRS.
Chemistry(p. 167), 3	Mechanics of Machines(p.	1511, 3
Chemical Laboratory p. 167), 4	Physics(p.	191), 2
Mapping(p. 195), 3	Physical Laboratory (p.	1921, 3
Materials of Construction(p. 170), 1	Surveying p.	1941, 2
Mathematics, 4, 5, 9   p. 180), 6	Shopworkp.	1991. 3
Mechanical Drawing p. 182), 3		

#### I. Architecture.

The Architectural Course, qualifying for the degree of Bachelor of Architecture (B.Arch.), differs from the others in the Faculty of Applied Science in that the curriculum is trom the first year separate and distinct, the studies in that year being divided between the Faculties of Arts and Applied Science.

In the second year the architectural studies proper commence and the amount of time devoted to design increases in the third and again in the fourth years.

Students of Architecture studying for the B.Arch. degree will attend the Summer School in surveying before entering the second year.

Broadly speaking, the lectures may be divided into five groups dealing respectively with History, Structure, Theory of Design, Ornament and Decoration, and Professional Practice, and in all courses studio work goes hand in hand with oral teaching, thus ensuring a thoroughly practical acquaintance with the subjects taken up, while at the same time affording abundant opportunity for the acquisition of power in draughtsmanship and practice in Design, this latter being the chief aim of the course.

The degree of B.Sc. in Architectural Engineering is provided for in an alternative course. In this case, the first two years are taken with the Civil Engineering students and Theory of Structures is included in the work of the latter years.

A modification of the Arts matriculation examination (with French compulsory, and Freehand and Geometrical Drawing added) will be taken by those studying for the degree of B.Arch., while the Applied Science matriculation examination will be taken by those studying for the B.Sc. degree.

The lecture hours in the third and fourth years are, as far as possible, from 9 to 10 in the morning, to enable partial students working in offices to avail themselves of the instruction. Such lectures will be found valuable for those studying for the R.I.B.A. and the P.Q.A.A. examinations.

The subjects of instruction and the number of hours per week devoted to each are as follows. (The allocation of time is liable to be varied according to the aptitude of the student):—

#### DEGREE OF BACHELOR OF ARCHITECTURE.

#### FIRST YEAR.

HRS.	Hrs.
English 3	Architectural Drawing 4
French 4	Descriptive Geometry 6
History 4	Freehand Drawing 3
Mathematics 4	Lettering 1
Physics 2	Shopwork 2
Physical Lab 2	

# . SECOND YEAR.

HRS.  Mathematics	HRS.  { Building Construction	
7 HIRD	YEAP.	
Hrs.	HR;	
* { History of Architecture	* Sanitation and Heating I  # Drain Plans and Heating Systems	
Fourth Year.—	-(Iirst Ieim).	
HRS.  { History of Architecture 2  * { Reference	HRS.  Ornament, A, B, or C	
FOURTH YEAR.—(Second Term).		
Hrs.	HES.	
History of Architecture 2 Reference 2 Planning	{ Ornament A, B, or €	
DEGREE OF BACHELOR OF SCIENCE (ARCHITECTURAL ENGINEERING).		
F C	7.*	

FIRST AND SECOND YEARS

As in other Engineering Courses. For details, see page 149.

<sup>\*</sup> Third and Fourth years together in alternate years.

## THIRD YEAR—(First Term).

Hus.  Hus.  History of Architecture	* Sanitation and Heating I  * Drain Plans and Heating Systems 3  Structural Engineering 2  Structural Eng. Details 4  Theory of Structures 3  Graphical Statics 2  Testing Laboratory 3	
. Гоиктн	YEAR.	
HKS.  { History of Architecture	* Specifications and Professional Practice	
II. Chemistry.		

The course in Chemistry is arranged to give the student in the first two years a thorough knowledge of the fundamental principles of Chemistry and Physics, with sufficient Mathematics to enable him to understand the theoretical parts of these subjects.

In the two subsequent years Chemistry, analytical, organic, and physical, is taught both in its purely scientific aspects and in its relations to the various departments of commercial Special facilities are afforded for the prosecution of post-graduate research work in all the branches of Chemistry.

The subjects of instruction and the number of hours per week devoted to each are as follows:--

#### FIRST YEAR.

As in other Engineering Courses. For details, see page 149.

#### SECOND YEAR.

Hrs.		H	RS.
Chemistry(p. 167), 3 Mathematics, 4, 5, 9(p. 180), 6			
Thysics(p. 191), 2	r nysicar izaboratory (p.	192)	3

#### THIRD YEAR.

HRS. Chemistry(p. 168), 3 Determinative Mineral(p. 186), 3 Geology(p. 177), 3	Hrs.  Metallurgy (p. 184) 1  Mineralogy (p. 186) 2  Chemical Laboratory (p. 188), 18
FOURTE	ı Year.
Chemistry (p. 168), 4	Chemical Laboratory(p. 165), 29

# III. Civil Engineering.

The courses of study in Civil Engineering are designed to give to the student a sound theoretical and practical training in the sciences and principles which underlie the profession of a civil engineer. It is scarcely possible for any one person to become proficient in all branches of civil engineering, so wide is its scope and so inclusive is its purpose. As generally it fined it is the "art of economically directing the great sources of power in nature to the use and convenience of man," by the construction of roads, railways, bridges, aqueducts, viaducts, canals, docks. harbours, breakwaters, light-houses, etc.; by the construction and adaptation of machinery; by the lighting and draining of cities and towns; and by the exploitation of mines. All these works are more or less governed by the same principles, and in these principles the student is carefully instructed, and by means of numerous problems occurring in every day practice, he is taught to apply his knowledge to the actual conditions of life.

During the session arrangements are made for the delivery, by distinguished engineers, of special lectures or short courses of lectures on actual works of construction.

Provision is made, by means of advanced classes, for graduates and special students to continue their studies and to engage in researches with a view to the solving of some of the numberless problems which confront the engineer in every direction. Much valuable work of this character has been already accomplished, and special reference may be made to the fact that for several years graduates of other universities—

a) F'rst Term.

some holding scholarships under the Royal Commissioners for the Exhibition of 1851—have carried out investigations in the several laboratories.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

#### FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see page 149.

#### THIRD YEAR.

HRS.	HRS.
Descriptive Geometry(p. 173), 4	Railway Structures(p. 197), 3 (b)
Geology (p. 177), 3	Roads and Canals(p. 196), 2
Geological Excursion(p. 178), 3 (c)	Struct. Eng (p. 171), 1 (a), 3 (b)
Graphical Statics (p. 171), 5 (a)	Surveying(p. 194), 2
Mapping(p. 195), 6	Theory of Structures(p. 169), 3
Mathematics, 6, 7, 10 (p. 180), 2	Thermodynamics(p. 182), I
Mechanical Drawing (p. 182), 3 (opt)	Testing Laboratory(p. 170), 3
Municipal Engineering.(p. 172), 1	Thermodynamic Lab.(p. 183), 2 (b)
Mus. Work in Geol. (p. 178), 1 (d), 2(b)	• •

## FOURTH YEAR.

HRS.	HRS.
Designing (p. 182), 8	Railway Engineering(p. 196), 2
Geodesy(p. 195), 2	Theory of Structures(p. 169), 4
Graphical Statics(p. 171), 3	Geodetic Laboratory(p. 195), 4
Hydraulics (p. 171), 2	Hydraulic Lab(p. 172), 3 (a)
Mechanical Eng (p. 183), 2 (a)	Testing Laboratory(p. 170), 3 b)
Municipal Engineering(p. 172), 1	

# IV. Electrical Engineering.

The first and second years of the undergraduate course of instruction in Electrical Engineering, are devoted, mainly, to a preparation in Mathematics, Physics, Chemistry, Mechanics, Drawing, Shopwork and work in the physical and chemical Laboratories.

The electrical studies of the third year embrace a consideration of continuous current flow, in circuits of different kinds, the principles of electro-magnetism, electrical measurements and the design and action of commutating machinery.

<sup>(</sup>a) First term. (b) Second term. (c) First half of first term. (d) Second half of first term.

HRS.

The fourth year is devoted principally to electrical work, and includes lectures and recitations on variable and alternating current phenomena, the principles of action and the design of alternating current machinery, electric lighting and systems of power distribution, central station design and operations, urban and inter-urban railways and long distance power transmission.

In the second term of the fourth year a choice may be made between electro-chemistry and hydraulies. Each fourth year student is required to present a thesis giving the results of a suitable experimental investigation.

The subjects of instruction and the number of hours per week devoted to each subject are as follows:—

### FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see page 149.

### THIRD YEAR.

Chemistry...... (p. 168), 1 Mechanical Drawing.... (p. 182), 3

HRS.

Continuous Currents and Commutating Machinery	Physics(p. 192), 2 Theory of Structures.(p. 169), 3 Chemical Laboratory(p. 168), 3 Elec. Eng. Lab(p. 175), 6 Physical Laboratory.(p. 192), 6 Testing Laboratory(p. 170), 3 (b)
Fourth	YFAR.
HRS.	Hrs.
Alternating currents and Alternating cur- rent machinery(p. 174), 3 Electro-Chemistry(p. 168), 1 (b) Electrical Designing.(p. 174), 4 Electric Lighting and Power Distribution.(p. 174), 3 (a) Electric Traction(p. 174), 3 (b)	Hydraulics(p. 171), 2 Machine Designp. 1821, 2 a Mechanical Eng(p. 183), 2 (a) Thermodynamics(p. 1821, 2 Hydraulic Lab(p. 172), 3 a) Electro Chemical Lab.(p. 168),3 b) Electrical Eng. Lab(p. 175), 9 Mech. Eng. Lab(p. 263), 3

<sup>(</sup>a) First term. (b) Second term.

# V. Mechanical Engineering.

The complete undergraduate course in Mechanical Engineering extends over four years, and provision is made for a fifth year or graduate course in advanced experimental and other work.

The first two years of the undergraduate course of instruction are largely occupied in preparation in Mathematics, Physics, Chemistry, Mechanics, Drawing, and Shopwork. During the second year one lecture and one exercise class per week are devoted to the kinematics and dynamics of machines.

While motion without regard to force is treated in the Kinematic course, the action of external forces in producing or changing motion in the links of mechanisms is considered in the second, third and fourth years, under the head of Dynamics of Machines. The lectures in these two subjects form the course in Mechanics of Machines. Exercise classes are held for the purpose of working the problems necessary for illustration, graphic methods being used in most cases.

The work in Machine Design is carried on during the third and fourth years in conjunction with the practical instruction in mechanical designing and drawing in the Drawing Rooms.

A course of two lectures per week is given during the fourth year on Mechanical Engineering as applied to questions connected with Power Installations and Prime Movers. A large portion of the work of this course is supplementary to, and follows, the instruction given in Thermodynamics and Machine Design, which extends over the third and fourth years. (See p. 182.)

Instruction in Workshop Practice (see p. 199) is given in each of the four years. It is of a systematic nature, and is intended to prepare for, but by no means to replace, that practical experience of workshop operations on a commercial basis which every mechanical engineer must obtain for himself.

The work of the lecture rooms is illustrated throughout the course by experimental work carried out by the student, and by demonstrations in the laboratories of the department.

Arrangements are made for occasional visits to power plants and manufactories of importance.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

## FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see page 149.

## THIRD YEAR.

HAS.	1115.
Continuous Currents	Mechanics of Machines(p. 181). 2
and Commutating	Thermodynamics(p. 182), 2
Machinery (p. 173), 2	Theory of Structures(p. 169, 3
Graphical Statics(p. 171), 2 (a)	Elect, Eng. Laboratory, p. 175, 3
Machine Design(p. 181). 2	Testing Laboratory(p. 1701.3
Mathematics, 6, 7, 10.(p. 150), 2	Mech. Eng. Laboratory. p. 263   3
Mechanical Drawing.(p. 152), 6	Shopwork (p. 199), 6
Fourth	YEAR.
Hrs.	His.
Designing(p. 182), 6	Mechanics of Machines
Hydraulies and Hydraul.	$(p, 181) = 5 (a_1 - 2 + b)$
Mach(p. 171). 2	Thermodynamics p. 152). 4
Machine Design (p. 181), 2	Hydraulic Laboratory. p. 172 3 b
Mechanical Eng (p. 183), 2	Mech. Eng. Lab p. 263 1, 12
	Shopwork(p. 190 . 4 <sup>1</sup> 2

# VI. Metallurgy.

The successful guidance of metallurgical industry requires, apart from considerations of business training and aptitude, an adequate knowledge of certain branches of Chemistry and Engineering as well as a familiarity with Metallurgy proper.

Provision has been made for a certain amount of specialization in the third and fourth years, a group of engineering studies being offered, optionally, with a corresponding amount of Chemistry and Metallurgy. Students electing the engineering options in both years, will, on graduating, obtain the degree of B.Sc. in Metallurgical Engineering, while those who do not elect these options will take the degree of B.Sc. in Metallurgy.

Between the second and third years there is a short summer course in the Chemical Laboratories.

<sup>(</sup>a) Fir-t term (b Sec n i term

In the third year, instruction is given in Chemistry, Mineralogy, Geology, Metallurgy, Ore Dressing and Ore Dressing Machinery, Mechanical Testing and Draughting. The engineering option consists of Mathematics, Graphical Statics and Theory of Structures.

Between the third and fourth years is a summer school in Metallurgical Works. In the fourth year instruction is given in Chemistry, Mineralogy, Metallurgy, Ore Dressing and Machinery. The engineering option consists of Dynamo Machinery or Hydraulics.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

### FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see page 149.

#### THIRD YEAR.

HRS.	HRS.
Chemistry(p. 168), 3 (a), 2 (b)	Assaying Lab. (p. 184), 3 (d), 4 (b)
Geology(p. 177), 3	Chemical Lab(p.168), 6
GeologicalExcursions.(p. 178),4 (c)	Metallurg. Lab. (p. 184), 6 (a), opt.
Geol. Museum. (p. 178), 1 (d), 2 (b)	Determin.Mineralogy (p. 186), 3
Mechanical Drawing(p. 182), 3	Ore-Dressing Lab. (p. 186), 3 (b)
Metallurgy(p. 184), 3(a), 1 (b)	Testing Lab(p. 170), 3 (b)
Min. & Metal. Mach'ıy (p. 185) 2	Graphical Statics(p.171) 2(a)
Mineralogy(p. 186), 2	Mathematics (p. 180), 2 opt.†
Ore-Dressing(p. 187), 2 (b)	Theory of Struct.(p. 169) 3

#### FOURTH YEAR.

Hrs.	HRS.
Chemistry(p. 168), 2	Chemical Lab. (p. 168), 12 (a), 6 (b)
Designing(p. 182), 3	Metal. Lab(p. 185), 3 (a) \ S (b)
Mechanical Eng (p. 183), 2 (a)	Metal. Lab(p. 185), 3 (a) S (b) Ore-Dress.Lab(p. 186), 3(a)
Metallurgy(p. 184), 3 (a), 5 (b)	Petrography(p. 178), 1 (a) \ 001
Metal. Colloquium. (p. 185, 1 (b)	Petrography. (p. 178), 1 (a) opt. Petrograph. Lab(p. 178), 3 (b)
Metal.Machinery.(p. 185), 2(a) 1(b)	Dynamo Mach'ry(p. 175), 2 cont
Mineralogy(p. 186), 2 (a)	Dynamo Mach'ry(p. 175), 2 } opt. Dynamo Lab(p. 175), 3
Ore Peposits (p. 178), 3 (b), opt.	Hydraulies(p. 171), 1 (a) )
Ore-Dress. & Milling. (p. 188), 2 (a)	Hydraulic Mach'y.(p. 172), 1 opt.
	Hydraulies(p. 171), 1 (a) Hydraulie Mach'y.(p. 172), 1 Hydraulie Lab.(p. 172), 3 (a)

<sup>(</sup>a) First term. (b) Second term. (c) First half first term. (d) Second half first term.
† Graphical Statics Mathematics and Theory of Structures form the Engineering

Note.—The engineering option in the fourth year is Dynamo machinery (subject to medification) or Hydraulies. Ore-deposits and Petrography are entirely optional.

# VII. Mining Engineering.

(With Options in Metallurgical Engineering).

1. The first two years of the undergraduate course in Mining Engineering are mainly devoted to Mathematics, Mechanics, Physics, Elementary Chemistry, etc., as it is deemed necessary that the students should master the general principles underlying all scientific work before they attack the somewhat complex and specialized subjects of the professional course.

In the third year, elementary courses in both Mining and Metallurgy are given, and a thorough course in Fire Assaying, but again the chief work is in Applied Mechanics, Mechanical Engineering, Geology, Mineralogy and Chemistry.

The fourth year, on the other hand, is very largely given up to special work in Mining. Ore Dressing and Metallurgy, and, in addition to the lectures and demonstrations, two days per week are spent in the Mining and Metallurgical laboratories and the drawing room.

At the end of the fourth year each student is required to present a thesis giving the result of an individual experimental investigation.

An option is arranged in the fourth year, so that students who are interested in Metallurgical work can elect to take advanced work in that subject in place of Advanced Hydraulics. Students who wish to fit themselves for both Mining and Metallurgy are advised to take this course instead of Course VI (page 157), which is exclusively metallurgical.

The subjects of instruction and the number of hours per week devoted to each are as follows:—

FIRST AND SECOND YEARS.

As in other Engineering Courses.' For details, see page 149.

THIRD YEAR.	
HRS.	Hrs.
Geology (p.177) , 3	Theory of Structures.(p. 169, 3
Graphical Statics(p. 171), 2 (a)	Transportationp. 196), 2 b)
Mining Mach (p. 187), 2	Chemical Laboratory p. 1651, 3
Mapping(p. 195), 6 (a)	Deter. Min. Lab p 156), 3
Mathematics, 6, 7, 10, (p. 180), 2	Fire Assaying Lab., p. 184), 4 (b)
Mechanical Drawing.(p. 182), 3	Geol, Ex. & Mus.
Metallurgy(p. 184), 3 (a)	p. 1751.3 (c).1 (d).2 (b)
Mineralogy (p. :86), 2	Ore-Dressing Lab p. 1851, 2 (b)
Ore-Dressing(p. 187), 2 (b)	Testing Lab p. 1701. 3 (b)
Surveying (p. :04), 2	

<sup>(</sup>a) First term. (b Second term.

### FOURTH YEAR.

Hrs.	Hrs.
Designing(p. 182), 3	Ore-Dress, & Milling. (p. 188), 3 (a)
Geol. & Physiography. (p. 179), 1	Petrography(p. 178), 1 (a)
Hydraulics(p. 171), 2 (a)	Mechanical Eng(p. 183), 2 (a)
Metallurgy (p. 184), 2	Chemical Lab. (p. 168), 9 (a), 6 (b)
HydMet., Opt(p. 171), 1 (b)	Mining Lab(p. 188), 3 (a)
Mineralogy (p. 186), 2 (a)	Metal. Lab(p. 185), 3 (a)
Mining(p. 188), 2 (a), 4 (b)	Ore-Dress. Lab (p. 188), 4 (a), 10 (b)
Mining Mach(p. 188), 3 (a), 4 (b)	Petrographical Lab. (p. 178), 3 (b)
Ore-Deposits(p. 178), 4 (b)	

## VIII. Transportation.

The courses in Transportation are designed for students who will enter:—

- (1) The Operating Department or Executive Offices.
- (2) The Motive Power Department.
- (3) The Engineering Department.

The work of the first and second years is indentical with that of the other courses in the Faculty of Applied Science; that of the third and fourth years (subject to revision and modification) is shown below. The courses for the fourth year will not be given until 1907-1908.

The Department reserves the right to reject any student who, in its judgment, cannot fulfil the requirements of the railways.

Students Apprentices: — Students in the Department of Transportation will, so far as possible, enter the employ of the Railway Companies as apprentices, during the summer vacations.

GRADUATE APPRENTICES: — It is also proposed that the students, on graduation, shall serve a probationary term as "graduate apprentices," for a period of two years.

The subjects of instruction in each branch of the course, and the number of hours per week devoted to each, are as follows:—

#### OPERATING AND EXECUTIVE.

# FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see page 149.

<sup>(</sup>a) First term. (b) Second t rm

### THIRD YEAR.

Hours.	Hours.
	Mathematics 2
	Mechanical Engineering 5
	Railway Organization 1 (a)
Freight Service I (b)	
French	Struct Engineering 1 (a), 3 (b)
Graphical Statics 5 (a)	

### FOURTH YEAR.

Hours.	Hours.
Accounting 2	Law 1 (b)
Chemistry 3 (a) -	Operating
Economics	Passenger Service 1
Electric Traction 2	Phys. Geog. and Climato-
English I	logy 2
French	Shops 5
	Terminals, etc 5

For particulars of the work in each of the above subjects, see pages 197 to 199.

### MECHANICAL.

The work of the first, second and third years will follow that outlined for Mechanical Engineering students (p. 157). During the fourth year opportunity will be given for specializing in locomotive construction and operation.

### CIVIL ENGINEERING.

## FIRST AND SECOND YEARS.

As in other Engineering Courses. For details, see page 149.

## THIRD YEAR.

Hours.	Hours.
Economics (p. 197), 2	Mechanical Drawing. (p. 182) 3 opt.)
Geology (p. 177), 3	Prime Movers 3
Geol. excursions (p-178), 3 (e)	Ry. Location and Constr 5
Geol. museum work. (p. 178), 1 (11),	Ry. Organisation and Man-
2 (b)	agement (p. 198, 1 u)
Graphical Statics. p.171), 2 (11), 3 (11)	Structural Engineering(p. 171), 2
Mapping (p. 194), 6	Testing Lab (p. 170), 3 (h)
Mathematics (p. 180),2	Theory of Structures (p. 169), 3
(a) First term. (b) Second term. (	c) First half of first term. (b) Second half

<sup>(1)</sup> First term. (b) Second term. (c) First half of first term. (b) Second half of first term.

### FOURTH YEAR.

Hours.	Hours.
Accounting (p. 199), 2	Law (p. 198), 1 (b)
Designing (p. 182), 6	Structural Engineering(p. 171), 2
Electric Traction (p. 174), 2	Terminals (p. 199), 5
Graphical Statics (p. 171), 3	Testing Lab (p. 170), 6
Hydraulics (p. 171), 2	Theory of Structures (p. 169), 4
Hydraulic Lab (p. 172), 3 (a)	

### GRADUATE COURSES.

Students who take the Bachelor's degree in one of the courses provided by the Faculty of Applied Science may graduate in any of the remaining courses by attending one or more subsequent sessions.

Graduates may also take an advanced course in the branch in which they have received their degree. The Master's degree will be conferred on their passing an examination at the end of such advanced course, and on presentation of a satisfactory thesis on approved work.

Students are strongly recommended to take a graduate course, and special arrangements will be made for advanced and research work in many subjects among which the following may be named:—

- (1) Architecture.—Advanced study in design.
- (2) The elasticity and strength of materials. See page 170.
- (3) Mining and Metallurgy. Advanced study in metallurgy and mining can be carried on with great advantage in the laboratories. (See pages 189, 263 and 264.)
- (4) The efficiency of pumps and hydraulic motors. (See page 172.)
- (5) Ore dressing, coal washing, and gold and silver milling. The laboratories of the Mining department have been equipped and arranged with special reference to advanced and research work in the theory and practice of concentration. (See page 264.)
- (6) The efficiency of power transmission by air, water, gas, and steam. (See page 183.)
- (7) The efficiency of steam, gas and hot-air engines and of air compressors. (See page 183.)

<sup>(</sup>a) First term (b) Second term

(8) The efficiency of machines and machine tools, and the power absorbed by the several processes of mechanical work. (See page 183.)

(9) The efficiency of dynamometers, belting and shafting, including investigations into the relative merits of the several

unguents. (See page 183.)

(10) The efficiency of the several types of boilers, including investigations on the heat-producing power of fuels. (See page 183.)

(11) The flow of water through orifices and pipes, and over

weirs. (See page 172.)

(12) Geodesy and practical astronomy. (See page 195.)

(13) The determination and comparison of the errors and the co-efficients of standards of length. (See page 195.)

(14) Physics.—The Macdonald Physics Building has been equipped and arranged with special reference to graduate courses and original research work in various branches of pure Physics. Every facility will be afforded in the workshops for the construction of special apparatus required for such investigations. (See page 193.)

(15) The determination of gravity. (See page 196.)

(16) Chemistry and Mineralogy. (See pages 169 and 186.)

(17) Mathematics.—Students taking graduate courses will receive guidance in any advanced mathematics required in connection with their work.

## COURSES OF LECTURES.

N.B.—The following courses are given subject to such modifications during the year as the Faculty may deem advisable.

## I. Architecture.

DEMONSTRATOR:

The work of the first year, which includes Mathematics, English, French, and Physics, with the first year and History with the third year in the Arts Faculty, and Drawing and

Shop-work in the Applied Science Faculty, is fully detailed on pages 96, 103, 116, 122, 124, 177 and 199. During the last three years the courses of study for architectural students are as follows:—

I. History of Architecture Second Year. (First Term.)
Egypt, Assyria, Babylonia, Greece. (Second Term.)
Rome, Pompeii, the Early Christian and Byzantine
periods. Mr. Burgess.

Text Books:—"A History of Architecture," by Banister Fletcher (Batsford); Anderson and Spiers, "Archi-

tecture of Greece and Rome" (Batsford).

2. Gothic Architecture. THIRD AND FOURTH YEARS together (alternately). (First Term.) The Romanesque Period in Europe; the Gothic Periods in England. (Second Term.) The Gothic Periods in France and Spain; the Gothic Revivals of the XIXth Century. Mr. Nobbs.

Text Books:—Banister Fletcher, "A History of Architecture" (Batsford); E. S. Prior, "History of Gothic Art in England (Bell); Moore, "Gothic Architecture"

(Macmillan).

- 3 Renaissance Architecture. Third and Fourth Years together (alternately). (First Term.) The Renaissance in Italy. (Second Term.) The late Renaissance in France and England and the XIXth Century movements in Europe and America. Mr. Nobbs.
  - Text Books:—Banister Fletcher, "A History of Architecture" (Batsford); Anderson, "Renaissance Architecture in Italy" (Batsford); Bloomfield, "Short History of Renaissance Architecture in England" (Bell).
- 4. Theory and Evolution of Architectural Forms. Second Year. (First Term.) The origins of Art; the moral and material logic of ornament; principles of Design. (Second Term.) The evolution of column and lintel Architecture; the evolution of arched and vaulted Architecture. Mr. Nobbs.

Text Book: — G. Baldwin Brown, "The Fine Arts"

(Murray).

5. Building Construction. Second Year. (First Term.)

Masonry; concrete; brickwork; carpentry for floors
and roofs. (Second Term.) Joinery for doors, casement and sash windows, stairs, etc. Mr. Burgess.

- Reference Books:—Rivington, "Building Construction"; Kidder, "Building Construction and Superintendence"; Clark, "Building Superintendence"; Martin, "Details of Building Construction"; Chandler, "Construction Details"; Mitchell, "Plates of Building Construction";
- 6. Ornament. Second, Third and Fourth Years together in three courses, A, B, and C, taken consecutively in different years.
  - (A) The Building Trades. The Building Construction of the second year will, in a sense, be continued in the course on the materials and techniques of the trades. Details will be prepared for stone carvers and wood carvers, for plaster work and wrought iron and beaten metal and cast bronze; for decorative joinery and attings; for marble pavements; leaded glazing, stained glass, and simple cabinet work. Mr. Nobbs.
  - Reference Books:—Dobson, "Masonry and Stonecutting":
    Starkie Gardner, "Wrought Iron Work": Millar,
    "Plastering, Plain and Decorative": Day, "Windows,
    a Book about Stained Glass," etc.
  - (B) Heraldry and Decoration. (First Term.) Heraldry. Ancient and Modern. (Second Term.) The Evolution of Mural Decoration.
  - Designs for decoration will be prepared in connection with this course, which will in this way correspond with the work in the course on the Building Trades. Mr. Nobbs.
  - Text Books:—Day, "Anatomy of Pattern" (Batsford); Eve, "Decorative Heraldry" (Bell).
  - Reference Books:—Fox-Davis, "The Art of Heraldry"; Walter Crane, "The Basis of Design"; Valance, "William Morris, his Art, etc."
  - (C) Historic Ornament. (First Term.) Classic and Mediæval ornamental systems. (Second Term.) The Renaissance Styles of Ornament; the Louis Periods in France; English Ornament and Furniture down to 1800.
  - Designs will be prepared as in connection with courses A and B.

- Reference Books: Violet-le-Duc, "Dictionnaire Résonné"; Owen Jones, "Grammar of Ornament"; Meyer, "Handbook of Ornament"; Blanc, "Grammaire des Arts Décoratifs."
- 7. The Science of Planning. Fourth Year. The planning of stables, farm buildings, cottages, workmen's dwellings, villas, country houses, city tenements, office buildings, schools, colleges, churches, hospitals, baths, banks, fire-stations, libraries, town halls, public buildings considered in the light of the governing principles of each type. For his diploma design the student will prepare a complete set of drawings for a building of moderate dimensions in connection with this course. Mr. Nobbs.
  - Reference Books:—Marks, "Principles of Flanning"; Statham, "Modern Architecture"; Stevenson, "House Architecture"; Also back numbers of the Building Papers, etc., etc.
- 8. Professional Practice. FOURTH YEAR. (First Term.)
  Conditions of contract; specifications; bills of quantities. (Second Term.) Building by-laws; architectural jurisprudence. Mr. Beullac.
- 9. Hygiene. Third Year. (First Term.) Light and air, water, sanitary plumbing. Drain plans will be prepared. (Second Term.) Gas, electric light, heating and ventilation. A Heating plan will be prepared. Special lecturer to be appointed.
  - Reference Books:—Lister Sutcliffe, "Modern House Construction"; Stevenson and Murphy, "Public Health"; Carpenter, "Heating and Ventilating of Buildings."
- in this subject continuing the Constructional side of the Art of Building commenced in the second year "Building Construction" class. These lectures will be provided by the Department of Civil Engineering.

Third Year. (First Term.) Materials, foundation, piers, arches, retaining walls, framed timber, roofs and floors.

(Second Term.) Iron roof truss, steel frame buildings, and fire-proof construction.

The Drawing period in connection with this course will be devoted to the designing of lumber-framed trusses and joints in iron-work. Mr. Mattice.

Reference Books: — Baker, "Masonry Construction"; Rivington, Building Construction."

Fourth Year. Special designs will be prepared for iron roofs and steel frame structures. Mr. Mattice.

Reference Books: — Baker, "High Office Buildings" Greene, "Roofs and Bridges"; Merriman, "Theory of Structures"; Bovey, "Theory of Structures and Strength of Materials."

# 2. Chemistry and Assaying.

Professors:—B. J. Harrington, M.A., Ph.D., LL.D.

J. WALLACE WALKER, M.A., PH.D.

Assistant Professor: Nevil Norton Evans, M.A. Sc.

LECTURER: DOUGLAS MCINTOSH, A.M., D.SC.

Demonstrator:—A. I. Robertson, B.Sc.

S. J. LLOYD, B.Sc.

J. W. INCE. M.A.

R. S. Boehner, B.Sc.

M. C. COLL McFee, B.A.

LECTURE ASSISTANT: ANNIE L. MACLEOD, M.Sc.

Students in all the courses of Applied Science are expected to take up the study of Chemistry in the second year, having previously acquired a knowledge of some branches of Physics in the first year of their course. They attend a course of lectures, supplemented by tutorial classes, on the laws of chemical combination, chemical formulæ and equations, the preparation and properties of the more important elements and their compounds, etc. They must also devote at least one morning or afternoon a week, throughout the session, to practical work in the laboratory, where they learn the construction and use of ordinary apparatus, and perform a series of experiments designed to cultivate the powers of observation and deduction. Many of the experiments involve accurate weighing, and for this purpose the elementary laboratory is well supplied with balances. During the second term considerable attention is also devoted to the subject of Qualitative Analysis.

Text-book:—Holleman's Inorganic Chemistry.

The lectures in the third year comprise:—

(a) A course dealing mainly with the methods and reactions employed in Chemical Analysis, being explanatory of the work done in the laboratory; one lecture a week during the session. (b) A course on Industrial Chemistry; two lectures a week during the first term, and one during the second. (c) An elementary course on Organic Chemistry; one lecture a week during the session. (d) A course on the composition and analysis of Iron and Steel; one lecture a week during the second term.

The laboratory work of the third year comprises:-

(a) An extensive course of Analytical Chemistry, including gravimetric, volumetric and electrolytic methods. (b) An elementary course on the preparation of Organic Compounds. (c) Water analysis and analysis of Iron and Steel, both in the second term. Students in the Mining Course are exempt from Organic Chemistry.

Lectures in the fourth year comprise:—

(a) A systematic course on Organic Chemistry, two lectures a week. (b) A course on Physical Chemistry, two lectures a week. (c) A course on Mineral Analysis. (d) A short course on Gas Analysis.

In the lectures on Organic Chemistry special attention is paid to the commoner substances which find application in the arts. The lectures on Physical Chemistry are divided into two parts. In the first term they include a study of such physical properties of gases, liquids, and solids as are known to depend upon their chemical constitution; also Thermo-Chemistry and the law of mass action. The second term is devoted to Electro-Chemistry, theoretical and applied. The lectures will be based upon the application of the gaseous laws to solutions. This will be followed by descriptions of the most recent applications of electricity to the production of metals and chemicals.

Laboratory work in the fourth year will be arranged to suit the requirements of students. Those intending to prosecute organic work will take up a complete course of Organic Preparations and Analysis, but they must also spend some time on the essential physico-chemical methods; while students of laysical Chemistry must spend enough time in the organic laboratory to become familiar with the chief methods of organic work. Those intending to devote themselves to Mineral Chemistry will omit the Organic Chemistry, but must study the more important physico-chemical methods, and devote a large amount of time to advanced Mineral Analysis. All students in the Chemistry Course must take up Gas Analysis.

Laboratory courses will also be provided for students who wish to make a specialty of any particular branch of Industrial Chemistry, such as Chemistry of oils, iron and steel analysis, bleaching, paper-making, and manufacture of sub-

stances by electro-chemical and other methods.

Of the above fourth year subjects students in the Mining Course take only the lectures and practical work in Mineral Inalysis.

# 3. Civil Engineering and Applied Mechanics.

PROFESSOR:—HENRY T. BOVEY, M.A., D.C.L., E.L.D., F.R.S.

ASSISTANT PROFESSORS: { H. M. MACKAY, B.A., B.A.Sc.}

LECTURERS: { W. Muir Edwards, M.Sc.}

LECTURERS: { H. K. DUT HER, M.Sc.}

DEMONSTRATORS:—{ CHAS. H. SUTHERLAND, B.Sc.}

G. H. BRUNNER, B.Sc.

1. Theory of Structures.—The lectures on this subject embrace:—

(a) The analytical and graphical determination of the stresses in the several members of framed-structures, both simple and complex, as, e.g., cranes, roof and bridge trusses, piers, etc.

(b) The methods of ascertaining and representing the shearing forces and bending moments to which the members of a

structure are subjected.

(c) A study of the strength, stiffness and resistance of materials, including a statement of the principles relating to work, inertia, energy, together with a discussion of the nature and effect of the different kinds of stress, and the resistance offered by a material to deformation and to blows.

(d) The design and proper proportioning of beams, pillars, shafts, roofs, bridge piers and trusses, arches, arched ribs, masonry dams, foundations, earth works, and retaining walls.

Text Book:—Bovey's Theory of Structures and Strength of Materials.

The Laboratory Work (see page 268) is as follows:-

Third Year.—During the third year a systematized course of laboratory instruction is given in which students carry out for themselves a series of tests upon engineering materials.

The course comprises:—

- (a) Linear measurements by Whitworth measuring machine, dividing engine, and micrometer gauges.
- (b) Calibration of extensometers, gauges, and the like.
- (c) Tension tests of long wires above and below the elastic limit.
- (a) Tensile and compressive tests of cast iron, wrought iron, steel, brass, copper, timber, stone, bricks, and cements.
- (e) Transverse tests of beams under different conditions of loading and fixing.
- (f) Shearing tests of iron, steel, timber, stone, and the like.
- (g) Torsional tests of metals.
- (h) Tests of materials under compound stress.
- (i) Tests of chains, wire cables, spikes, screws, and the like.
- (j) Pillar tests under various conditions of loading and fixing.
- (k) Determination of the various moduli of materials by static and dynamic methods.
- (1) Determination of centres of gravity, moments of inertia, and moments of resistance.
- (m) The testing of concrete and cement in accordance with standard specifications.

Fourth Year.—During the fourth year students are required to engage in a research upon the physical properties of a material of construction, with special reference to the form and position of such material in the structure.

2. Materials of Construction.—Elementary treatment of metallurgy of iron and steel.—Blast furnace, cast iron, wrought iron; crucible, Bessemer and open hearth processes; effects of impurities; heat treatment; principal alloys (nickel steel, tool steels, brasses and bronzes, white metals, etc.); discussion of standard specifications for iron and steel; considerations governing selection of materials; manufacture and properties of Portland and natural cements; limes; concrete; stone and brick masonry; principal kinds of timber used for engineering purposes; preservation of timber. Strength of materials is taken up in so far as is necessary to understand standard specifications.

- 3. Structural Engineering.—Foundations; bearing power of soils; piles and pile driving; concrete piles; grillages; foundations under water; coffer dam, open dredging, pneumatic and freezing processes; examples in the design of beams, plate girders, columns, footings, piers and roof trusses; reinforced concrete; estimation of quantities from drawings; estimates of cost.
- 4. Graphics. General methods involving the use of the funicular and force polygons; determination of reactions, centres of gravity, bending moments, moments of inertia and moments of resistance; graphical representation of shearing forces and bending moments; stresses in cranes, braced towers, roof trusses, and bridge trusses; three hinged arches, masonry arches, abutments, etc.
- 5. Bridge Construction.—A course of lectures is given on practical bridge construction, including:—
- (a) The reasons governing the selection of a particular type of bridge;
- (b) A discussion of the loads to which the bridge will be subjected;
- (c) The calculations of the stresses in the several members of the bridge;
- (d) The determination of the sectional areas and forms of the members;
  - (c) The design of the connections;
- (f) The preparation of complete engineering drawings. Dr. Bovey, Mr. Mackay and Mr. Brown.
- 6 Hydraulics. The student is instructed in the fundamental laws governing the equilibrium of fluids, and in the laws of flow through orifices, mouthpieces, partially or wholly submerged openings, over weirs, through pipes, and in open channels and rivers. The impulsive action of a free jet of water upon vanes, both straight and curved, is carefully discussed, and is followed by an investigation of the power and efficiency of the several hydraulic motors, e.g., reaction wheels, pressure engines, vertical water wheels, turbines, pumps, etc. Dr. Bovey and Mr. Brown.

Text Book:—Bovey's Hydraulics.

The laboratory work (see also page 261) will include the following:—

(a) Flow through orifices.—The determination of the co-effi-

cient of discharge, velocity, etc.

(b) Flow over weirs.—The determination of the co-efficient of discharge with and without side contraction. Also the measurement of the section of the stream.

(c) Flow through pipes.—The determination of critical velocities and of the effect upon the flow, of angles, bends,

and sudden changes in section.

(d) Impact.—The determination of the co-efficient of impact.

(e) Motors, etc.—The determination of the efficiency of Pelton and other wheels, of vortex and other turbines, of centrifugal and other pumps, etc.

(f) The laboratory equipment is also available for any special

hydraulic investigation.

- 7. Hydraulic Machinery.—The lectures in this course apply the principles of hydraulics to explain the construction and action of hydraulic presses, accumulators, lifts, rams, riveting machinery, pumps, multi-cylinder engines, workshop tools, turbines, centrifugal pumps, and the like. The design of one or two types is considered in detail. The hydraulic transmission of power and the design and construction of central stations is also included. Mr. Brown.
- 8. Municipal Engineering. The lectures on this subject will embrace:—
- (a) Water Supply.—The quantity and quality of water; systems and sources of supply; rainfall and evaporation; storage as related to the supplying capacity of water-sheds; natural and artificial purification; distribution, including the location of mains, hydrants, stop-valves, etc.; combined or separate fire and domestic systems; details of construction, including dams, reservoirs, pumps, etc.; preliminary surveys, estimates of cost, statistics, etc.

(b) Scarrage of Cities and Towns.—The various systems for the removal of sewage; special methods in use for its treatment and ultimate disposal; the proportioning and construction of main, branch, and intercepting sewers; man-holes, flushtanks, catch-basins, etc.; materials used in construction; estimates of cost. Mr. Edwards.

# 4. Descriptive Geometry.

LECTURERS:- { C. H. McLeod, Ma.E. H. F. Armstrong.

This course deals with the methods of representing objects on one plane so that their true dimensions may be accurately scaled. It discusses the methods employed in the graphical solution of the various problems arising in engineering design, and deals generally with the principles underlying all constructive drawing. The methods taught are illustrated by applications to practical problems. It is the aim of the work to develop the imagination in respect to the power of mentally picturing unseen objects, and, incidentally, precision in the use of the drawing instruments is attained.

First Year.—Geometrical drawing; problems on straight line and plane; projections of plane and solid figures; curved surfaces and tangent planes; intersections of surfaces; axometric projections; shades and shadows.

Third Year.—Mathematical perspective and perspective of shadows, etc.; spherical projections and the construction of maps. (This course is given under Surveying and Geodesy, see page 194). Mr. Kerry.

# 5. Electrical Engineering.

Professor:—R. B. Owens, M.A., E.E., D.Sc. Assistant Professor:—L. A. Herdt, Ma.E., E.E., Demonstrator:—E. P. Fetherstonhaugh, B.Sc.

# UNDERGRADUATE COURSES.

1. Continuous Currents and Commutating Machinery.—The theoretical consideration of continuous current flow in circuits of different kinds; the laws of electro-magnetism and of the magnetic circuit; the action and principles of design of commutating and rectifying machinery:—required of students in Electrical and Mechanical Engineering.

T. and Th., 9-10-Mr. Herdt. First and second terms.

Text Books:—Magnetic Induction of Iron and other Metals. J. A. Ewing: Continuous Current Dynamos, J. Fisher-Hinnen; Design of Dynamos, S. P. Thompson.

2. Alternating Currents and Alternating Current Machinery. The theoretical consideration of variable current flow in circuits containing resistance, inductance and capacity under different conditions; the action and principles of design of synchronous and induction machinery:—required of students in Electrical Engineering. Must be preceded by course 1.

W., Th. and F., 11-12—Professor Owens. First and second

terms.

Text Books:—Theoretical Elements of Electrical Engineering, C. P. Steinmetz; Alternating Currents and Alternating Current Machinery, D. C. Jackson; The Induction Motor, B. A. Behrend.

3. Electric Lighting and Power Distribution.—The design and operation of central and isolated lighting and power plants; the design and construction of distributing lines; arc and incandescent lighting; the appliances of stationary motors to general power purposes:—required of students in Electrical Engineering. Must be preceded by course 1.

T., W. and F., 10-11—Mr. Herdt. First term.

Text Books:—Electric Lighting, F. B. Crocker; Electric Power Transmission, Louis Bell.

4. Electric Traction.—Determination of power required to accelerate and draw, at different speeds, loads under varying track and other conditions; car equipment as affected by nature of service; track construction; systems of distribution for urban and for heavy through traffic conditions:—required of students in Electrical Engineering. Must be preceded by course I.

T., W. and F., 10-11-Mr. Herdt. Second term.

Text Books:—The Electric Railway, Louis Bell. Students are furnished with supplementary notes.

5. Electrical Designing.

(a) Detailed electric and magnetic calculations and complete drawings for a commutating machine, a synchronous machine and a transformer or an induction motor:—required of students in Electrical Engineering. Must be preceded by course 1, and taken in conjunction with course 2.

Saturday, 9-1—Professor Owens. First and second terms.

Text Books:—Design of Dynamos, S. P. Thompson; Supplemented by MS. notes and data.

(b) Complete plans and estimates for an isolated or central lighting or power plant, including distributing system:—required of students in Electrical Engineering. Must be preceded by course I and taken in conjunction with courses 3 and 4.

Mr. Herdt. First and second terms.

Text Books:-No text books. Notes and data are furnished.

6. Electrical Engineering Laboratory.

(a) Includes such tests of direct current metering and controlling devices, dynamos, motors, boosters, motor-generators, dynamotors, converters, open and closed coil, constant current machines and are and incandescent lamps as illustrate the principles of their action and the limits of their proper use; also complete test of direct current isolated or central lighting or power plant:—required of students in Electrical Engineering. Must be taken in conjunction with or be preceded by course 1.

T., Th., 2-5-1'rofessor Owens, Mr. Herdt. First and

second terms.

Text Books:—Testing of Dynamos and Motors, Charles F. Smith. In addition, students are furnished with special laboratory notes and forms.

(b) Includes experiments on variable current flow in circuits of different kinds; tests of alternators, synchronous motors and converters, compensators, induction motors, transformers, frequency and phase-changing apparatus, potential regulators, reaction coils, etc., and complete test of alternating lighting or power plant:—required of students in Electrical Engineering. Must be preceded by course I and taken in conjunction with course 2.

M., W. and F., 2-5—Professor Owens, Mr. Herdt. First and second terms.

Text Books:—Practical Alternating Current Testing, Charles F. Smith. Students are also furnished with special laboratory notes and forms.

7. Telegraphy and Telephony.—Single, duplex, quadruplex and multiplex telegraph systems, telephone systems, current generation for telegraph and telephone work, central telegraph and telephone stations; line construction and testing; special systems of signalling:—optional. One lecture per week, at time to be arranged—Professor Owens. First term.

Text Books:—Telegraphy, Preece and Sievewright; A manual on Telephony, Preece and Stubbs.

## Post-Graduate Courses.

- 8. Special problems in the theory and practice of alternating current working.—Two lectures per week at times to be arranged—Professor Owens. First and second terms.
- 9. Special Problems in Electric Traction.—One lecture per week at time to be arranged—Mr. Herdt. First and second terms.
- 10. Advanced Laboratory Investigations.—Special research work by students having necessary previous training—Professor Owens, Mr. Herdt.
- II. Electrical Engineering Seminar.—Weekly meetings are held, at which students present carefully prepared papers upon current engineering literature and special topics in connection with their studies or their laboratory worl:—Professor Owens. Mr. Herdt.

# 6. English Composition.

LECTURER:-JOHN W. CUNLIFFE, M.A., D.LIT.

In view of the importance of accuracy of expression in the case of those engaged in scientific or professional work, a course on English Composition is prescribed for all undergraduates of the first year who do not give evidence of having already reached the required standard of proficiency, either by university certificates, or by passing a special exemption examination. This special examination will be held in the Molson Hall on Wednesday, Sept. 19, at 11 o'clock.

Students who are required to take this course will be assigned to a section which will meet weekly for practice and instruction in composition. The handbook used is Carpenter's Elements of Rhetoric, First High School Course (Macmillan Co.), and every member of the class is required to provide himself with a copy.

Satisfactory results in class and essay work must be obtained before entry into the Second Year.

Summer Reading.—During the vacation, undergraduates entering the second year will study Cunliffe's Nineteenth Century Prose (Copp, Clark Co.), and will be examined thereon at the beginning of their second session. The marks obtained

in this examination will be reckoned in determining the relative standing at the sessional examinations at the end of the second year.

French Students may substitute for the above the following:— . Corneille—Le Cid, Horace; V. Hugo—Hernani, Ruy Blas: Balzac—Eugenie Grandet.

Students will also be required to possess some knowledge of the lives of the above French authors.

Students who have already taken equivalent courses in this, or in any other university, may be exempted from the work prescribed for Summer Reading, on written application to the Dean. All others must pass the examination.

In 1906 this examination will be held on Tuesday, September 18th, at 2.30 p.m. in the Molson Hall.

# 7. Freehand Drawing, Lettering, Etc.

ASSISTANT PROFESSOR:-II. F. ARMSTRONG.

In the Freehand Course, the object is to train the hand and eye so that students may readily make sketches from parts of machinery, etc., either as perspective drawings in light and shade, or as preparatory dimensioned sketches from which to make scale drawings.

In the Lettering Course, plain block alphabets, round writing, and titles, will be chiefly dealt with. In this course, also, tinting, tracing, blue printing and simple map drawing will be included.

# 8. Geology.

PROFESSOR:—F. D. ADAMS, M.A.Sc., PH.D., D.Sc. DEMONSTRATOR:—J. AUSTEN BANCROFT, M.A.

The courses are arranged as follows:—Third Year.

General Geology.—The lectures will embrace a general survey of the whole field of Geology, and will be introduced by a short course on Mineralogy. Especial attention will be devoted to Dynamical Geology and to Historical Geology, including a description of the fauna and flora of the earth during the successive periods of its past history, as well as to the economic aspects of the subject.

The lectures will be illustrated by the extensive collections in the Peter Redpath Museum, as well as by models, maps, sections and lantern slides. There will be an excursion every Saturday until the snow falls, after which the excursion will be replaced by a demonstration in the Museum.

Text Book:—Scott, An Introduction to Geology.

## Fourth Year.—

Petrography.—The modern methods of study employed in Petrography are first described, and the classification and description of rocks is then taken up.

In addition to the lectures, one afternoon a week during the second term will be devoted to special microscopical work in the Petrographical Laboratory.

Text Book:—Harker, Petrology for Students.

Ore Deposits, Economic Geology and Practical Geology.—
The nature, mode of occurrence and classification of ore deposits will first be taken up. A series of typical occurrences will then be described and their origin discussed. The more important non-metallic materials, e.g., fuels, clays, abasive materials, building stones, etc., will be similarly treated as well as questions of water supply, artesian wells, etc. The methods employed in carrying out geological and magnetic surveys and in constructing geological sections will then be taken up, with special studies in folding, faulting, etc.

The course will be illustrated by maps, models, lantern slides and specimens.

Text Books:—Geikie, Outlines of Field Geology; Kemp, Ore Deposits of the United States and Canada; Phillips and Louis, A Treatise on Ore Deposits.

Books of Reference:—The Monographs of the U. S. Geological Survey, and the Reports of the Geological Survey of Canada.

Canadian Geology.—A general description of the Geology and mineral resources of the Dominion.

Petrographical Laboratory. — See page 265. This laboratory is open to fourth year mining students during the second term.

Physiography.—The course will consist of a study of the principal types of land forms and their influence upon human development. Attention will be given more particularly to the practical bearing of the subject on engineering work. During the latter part of the course, a brief description of the salient physical features of Canada will be presented.

The course will be illustrated by maps, models and lantern slides.

Field Work.—The students in mining will receive a course of instruction in geological mapping and field work—extending over one week—in connection with the summer school of mining.

Note.—Students of the Mining and Chemistry courses take all the Mineralogy of the third year. Mining students take all courses of the fourth year. Chemistry students take in addition to the Geology of the third year, the Mineralogy in the fourth year.

# 9. Mathematics and Mathematical Physics.

Professor:—G. H. Chandler, M.A.

Assistant Professor:—Murray Macneill, M.A.

Lecturer:—W. M. Edwards, M.Sc.

The work in this department is conducted from the outset with special reference to the needs of students of applied science. Much time is given to practice in the use of mathematical tables, particular attention being paid to the tracing of curves, graphical illustrations and solutions, methods of computing, approximations, etc.

The courses of study are as follows:-

t. Geometry.—Exercises on Euclid, including loci, transversals, etc., elements of Solid Geometry and of Geometrical Conic Sections. First year (first term). Text Book:—Wilson's Solid Geometry and Conic Sections (Macmillan).

- 2. Algebra.—Miscellaneous theorems and exercises, exponential and other series, determinants, probabilities, properties and solution of higher equations, complex numbers and vector algebra, graphical algebra with an introduction to Analytic Geometry. First year (second term). Text Book:—Dickson's College Algebra (Wiley) with lecture notes.
- 3. Trigonometry.—Plane and Spherical. First year (second term). Text Book:—Murray's Plane and Spherical Trigonometry (Longmans), with Bottomley's and Chambers's Mathematical Tables.
- 4. Analytic Geometry.—The point, straight line, circle, parabola, ellipse and hyperbola. Second year (first term). Text Book:—Lambert's Analytic Geometry (Macmillan).
- 5. Calculus.—Differentiation of functions of one or more variables, successive differentiation, tangents, etc., multiple points, asymptotes, curvature, maxima and minima, integration, with applications to areas, volumes, moments of inertia, etc. Second year (second term). Text Book:—
- 6. Analytic Geometry.—Elements of Geometry of Three Dimensions. Third year (first term).
- 7. Calculus.—Various applications, elementary differential equations. Third year (first term).
- 8. Dynamics.—An elementary course in Kinematics, Kinetics, Statics and Hydrostatics. First year (first term). Text Book:—Blaikie's Dynamics (J. Thin, Edinburgh).
  - 9. Dynamics.—Kinematics, Kinetics of a Particle, Statics. Second year (first term). Text Book:—Wright's Mechanics (Van Nostrand).
  - 10. Dynamics.—Kinetics of a rigid body, centres of pressure, etc. Third year (second term).

Classes may also be held for advanced (optional) work in the above or other subjects. Students taking graduate courses will receive guidance in any advanced mathematics required in connection with their work.

# 10. Mechanical Engineering.

Professor:-	-R. J. Durley, B.Sc., Ma.E
Assistant Professors: {	H. M. JAQUAYS, M.A., M.Sc.
Demonstrators:—{	
!	

### UNDERGRADUATE COURSES.

1. Mechanics of Machines.

(a) Kinematics of Machines.—Second year (first term):— Monday, 11; Wednesday, 11. Third year (second term):—

Monday, 10; Wednesday, 9.

Definitions; mechanisms and machines; kinematic pairing; velocity and acceleration in mechanisms; centrodes; restraint in mechanisms; analyses of the quadric crank chain, the slider crank chain and the double-slider crank chain; higher pairing in mechanisms; cams; ratchet and click trains; chamber-crank and chamber-wheel trains; mechanisms involving non-rigid links; screw motion and spheric motion in mechanisms.

Text Book:—Durley's Kinematics of Machines (Wiley).

(b) Dynamics of Machines.—Second year (second term):— Monday, II; Wednesday, II. Third year (first term):— Monday, IO; Wednesday, 9. Elementary dynamics of the steam engine; diagrams of crank effort; fluctuation of energy and speed; fly-wheels; friction of journals and pivots; graphic treatment of friction in mechanisms; brakes; dynamics of belt and rope driving; transmission and absorption dynamometers.

Fourth Year.—(Tuesday, 9; Wednesday, 9; Thursday, 12.) Balancing of double and single acting engines; dynamics of the connecting rod; gyrostatic action in machines; theory of governors; graphic methods in dynamics; vibration in machines; knocking of steam engines.

2. Machine Design.—Third Year.—Thursday, 10. Principles of the Strength of Materials as applied to the design of the parts of machines; fastenings used in machine construction, bolts, screws, keys, cotters, rivets and rivetted joints; journals and bearings; shafts and couplings.

Fourth Year.—(Monday, 12; Wednesday, 12).—Design of wheel gearing; belts, ropes and pulleys; pipes and pipe joints; cylinders; eccentrics, piston and piston rods, connecting rods, cross-heads and other engine details; flywheels; design of valves and valve gears.

Text Book:—Unwin's Machine Design (Longmans, 2 Vols.). Book of Reference:—Low and Bevis' Machine Drawing and Design (Longmans.)

3. Mechanical Drawing and Designing. — Second Year. — (Monday and Thursday, 2). Elementary principles of mechanical drawing and draftsmanship; preparation of working drawings of simple machine details; making dimensioned sketches of machines and their parts, dimensioning and conventional colouring of drawings; preparation of tracings.

Third Year (Monday and Thursday, 2).—Designing of simple machine parts; more difficult exercises in mechanical drawing; engine designing.

Fourth Year (Monday and Thursday, 2).—The complete design of a machine, such as a steam engine, a pump, or a machine tool, is worked out, and the requisite working drawings and tracings are prepared.

4. Thermodynamics.—Third Year.—(Monday, 11; Tuesday, 10.)—Fundamental laws and equations of Thermodynamics; their application to gases and to vapours, saturated and superheated; efficiency of ideal heat engines; properties of steam, and elementary theory of the steam engine; elementary theory of gas and hot air engines.

Fourth Year. — (Monday, 9; Thursday, 11). — Theory of reversed heat engines and refrigerating machines; entropy and entropy-temperature diagrams; a thermodynamic study of the steam engine, including the behaviour of steam in the cylinder; economy of steam engines; influence of size, speed, and rate of expansion; compound expansion; the steam jacket; the testing of steam engines; theory of steam turbines; more advanced theory of gas, air, and oil engines.

The advanced course is carried out as far as possible in connection with the experimental work of the thermodynamic laboratory.

Text Books:—Ewing's Steam Engine (Cambridge Univ. Press); Peabody's Tables of Properties of Steam (Wiley).

5. Mechanical Engineering. — Fourth Year. — (Thursday, 10; Friday, 9.).

Steam boilers and steam production; fuel and combustion; corrosion and defects of boilers; boiler installations; the steam engine—estimation of power developed under various conditions; the indicator and its diagrams; steam distribution; performance of pumping and air-compressing machinery, as shown by the indicator; economy of steam machinery; gas and oil engines; gas producers; mechanical distribution of power, and losses of power, in power installations and workshops; air compressors; fans; pumping machinery; steam engine valves and valve gears; valve diagrams; speed regulation in steam engines; lubrication in steam engines; steam turbines and engines for special services; relation between weight and power in steam machinery; marine engines and ship propulsion; elements of locomotive engineering; tractive force in locomotives; train resistance; brakes; refrigerating machinery.

Books of Reference:—Ewing's The Steam Engine (Camb. Univ. Press); Lineham's Mechanical Engineering (Chapman & Hall); Hutton's Mechanical Engineering of Power Plants (Wiley).

6. Laboratory Instruction. See page 263.

7. Workshop Practice. See page 199.

# Post-Graduate Courses.

The post-graduate courses in Mechanical Engineering comprise experimental research work of the following kinds:—

Tests of the economy and performance of steam engines and boilers, air and gas engines, and air compressors; experiments on cylinder condensation, on feed heating, and on the value of fuels; experiments on the properties and relative values of lubricants, on transmission and absorption dynamometers, on the efficiency of transmission machinery and of machine tools; tests of fans and blowers; experiments on the flow of air and of steam; researches on the tempering and welding of various materials, on the properties of alloys and on the action of cutting tools.

# 11. Metallurgy.

Professor:—Alfred Stansfield, D.Sc. Demonstrator:—E. E. Winter, B.Sc.

Undergraduate Courses.

(For Metallingical and Mining students.)

THIRD YEAR.—(I) General Elementary Metallurgy, including introduction, fuels, furnaces and refractory materials, typical metallurgical operations and reactions. Two lectures a week during first term.

(2) Fire Assaying, including introduction, furnaces, balances and other appliances, sampling and preparation of ores for assay, fluxes and reagents, assays of gold, silver, and lead ores, assays of bullion and base bullion.

Lectures, demonstrations, and laboratory work,—60 hours. Text Book:—Lodge, "Notes on Assaying."

- (3) Mining and Metallurgical Machinery. Lectures and laboratory, two hours a week (see Mining 2, p. 187).
- (4) Metallurgical Laboratory. One day a week during first term for Metallurgical students. (See Metallurgy 11, page 185.)
- FOURTH YEAR. (5) The Metallurgy of iron and steel, copper, lead, gold and silver. The lectures cover the more important dry and wet methods of extracting these metals from their ores, and refining them. The chemical, physical and mechanical properties of the metals are also considered. The milling and amalgamation, cyaniding and chlorination of gold and silver ores are excluded from this course, as they are treated in the lectures on ore-dressing (see Mining 6, p. 188).

Two lectures a week. Laboratory (see Metallurgy 11, page 185).

Books of Reference:—T. Turner, "Metallurgy of Iron"; H. M. Howe, "Metallurgy of Steel"; F. W. Harbord, "Metallurgy of Steel"; H. H. Campbell, "Manufacture and Properties of Iron and Steel"; E. D. Peters, "Modern Copper Smelting"; H. O. Hoffman, "Metallurgy of Lead"; H. F. Collins, "Metallurgy of Silver and Lead"; T. K. Rose, "Metallurgy of Gold"; C. Schnabel, "Handbook of Metallurgy," Vol. I.

- (6) Electric Smelting and Refining of Metals.—One lecture a week during second term. (This course is alternative with Hydraulics).
- (1) Metallurgical calculations and the metallurgy of nickel, cobalt and zinc. Two lectures a week during second term. (This course may be alternative with physiography for mining students.)
- (8) Additional lectures are given in the third and fourth years to metallurgical students. In these lectures the metallurgy and electro-metallurgy of the remaining metals is considered, and attention is given to laboratory and research work in metallurgy and to furnace construction and cost of metallurgical operations.

(9) Mining and Metallurgical Machinery (see Mining 5,

page 188).

(10) Metallurgical Colloquium (see Mining 7, p. 188).

(11) Laboratory: — One whole day per week is given to work in the Ore Dressing and Metallurgical Laboratories in the first term. This time is evenly divided between ore dressing and metallurgy, and certain typical operations in each are carried out either as demonstrations, or by groups or individual students.

One whole day and one half-day in the laboratory in the second term is given to thesis work, and in this individual work each student is permitted to elect between ore dressing and metallurgy, and, when practicable, to select his own special subject.

The following metallurgical exercises will be carried out, as far as time will permit, during the first term, either as demonstrations, individual work, or work in groups. During the second term, any of these or some similar exercises may be selected by the students as their thesis work:—(a) Roasting a sulphide or arsenical ore on a small scale and also in the large roasting furnaces; (b) formation and properties of copper or lead matter and slags; (c) smelting a copper or lead ore in the water jacketed blast furnace; (d) melting and casting certain metals and alloys; (e) the use of the electric furnace; (f) leaching a copper or silver ore; (g) elementary exercises in some of the following:—pyrometry, calorimetry, flue gas analysis, tests of refractory materials, microscopic examination of metals, heat treatment of iron or steel.

The details of the ore dressing work are given in Mining (8), page 188.

## Post-Graduate Courses.

Special advanced courses of laboratory work are offered in Metallurgy and Assaying.

METALLURGICAL EXCURSIONS AND SUMMER SCHOOLS.

Students attending the courses in Mining and Metallurgy are required to attend the Summer School in Mining (see page 190), at the end of their third year.

At this school, when practicable, a portion of the time is devoted to a thorough examination of some metallurgical establishments.

In addition to this, excursions may be made by the class from time to time to such metallurgical works as are within reach.

(For description of Metallurgical and Assaying Laboratories, see page 263.)

# 12. Mineralogy.

Professor:—B. J. Harrington, M.A., Ph.D., LL.D. Demonstrator:—Richard P. D. Graham, B.A.

# THIRD YEAR:-

Mineralogy.—Lectures and demonstrations illustrated by models, specimens and lantern slides. Among the subjects discussed are: crystallography; physical properties of minerals dependent upon light, electricity, state of aggregation, etc.; chemical composition, calculation of mineral formulæ, quantivalent ratios, etc.; principles of classification, description of species.

Determinative Mineralogy.—Laboratory practice in blow-pipe analysis and its application to the determination of mineral species.

# FOURTH YEAR:-

Mineralogy (in continuation of the course in third year)—
Description of species, particular attention being paid to
those which are important as rock constituents and to
the economic minerals of Canada.

Students in the Chemistry Course will also take the following subjects:—Measurement of the angles of crystals with the reflection goniometer, projection of crystal forms; calculation of axial ratios of crystals; drawing of crystal forms; use of the polarizing microscope; axial angle apparatus, etc.

# 13. Mining Engineering.

PROFESSOR:—JOHN BONSALL PORTER, E.M., PH.D., D.Sc. (HON.) LECTURER:—JOHN F. ROBERTSON, M.Sc. FELLOW IN MINING:—F. G. WICKWARE, B.A., B.Sc.

### UNDERGRADUATE COURSES.

THIRD YEAR.— (1) Ore Dressing. The theory and practice of ore dressing and coal washing; the forms in which ores occur and the effect of mixture, impurity, etc.; the theoretical considerations affecting mineral separations; the general mechanical operations involved; Dressing Machinery—breakers, rolls, screens, jigs, vanners tables, washers, buddles, magnetic separators, etc. (Two lectures per week in the second term and laboratory. This course is continued in the fourth year. See Mining 6, page 188.)

- (2) Mining Machinery. Elementary machine design; rivets and riveted joints, screw threads, shafting, pulleys and belting; laws and equations of thermodynamics and their application; the compression and expansion of air in compressors and motors; laboratory tests of steam engines, of air compressors and of a gas engine. (Two hours per week. This course is continued in the fourth year. See Mining 5, page 188.)
- (3) Laboratory. Simple examinations and tests of ores, sands, and gravels, by means of pan, vanning shovel, hand jig, magnet, classifier, etc. (Ten afternoons in the second term. Further laboratory work in the fourth year, see Mining 8, page 188.)

FOURTH YEAR.—(4) Mining Engineering. The principles and practice of mining; prospecting, excavation, explosives and blasting, rock drills, coal cutters, etc.; gold washing, river

mining, hydraulic mining and gold dredging, sinking, drifting, developing, methods of mining, timbering, hauling, hoisting, draining, lighting, ventilating, etc.; mine accidents and their prevention; general arrangement of plant, administration, stores and dwellings; examination and valuation of mines and mineral properties and mine reports. (Three lectures a week.)

- (5) Mining and Metallurgical Machinery (continuation of the course from the third year). The generation, transmission and utilization of power in mining, ore dressing, and metallurgy: steam, hydraulic and electric power plants, air compressors, blowing engines, dynamos, transmission lines, motors, conveyors, cranes, hoists, pumps, ventilating machinery, etc. (Three lectures a week and twenty-five afternoons in the designing room.)
- (6) Ore Dressing and Milling. Continuation of the ore dressing course of the third year; concentration plants, coal breakers and washers, dry concentration, amalgamation, gold and silver milling, cyaniding, chlorinating, etc. lectures a week in the first term.)
- (7) Mining Colloquium. One hour a week from the time assigned to lectures throughout the session is given to informal discussion of the work being done in the department and of other matters relating to mining, ore dressing Students are required to take active part and metallurgy. in these discussions.
- (8) Laboratory. Two mornings per week in the first term and one whole day and one half-day per week in the second are given to the ore dressing and metallurgical laboratories. In the first term this time is evenly divided between Ore Dressing and Metallurgy, and certain typical operations in each are carried out. In the second term each student is permitted to choose an individual subject or thesis, and the whole of the laboratory time in the second term is given to this thesis work.

The set exercises in Ore Dressing comprise a series of experiments in crushing, classifying, jigging, slime treatment, magnetic separation, and amalgamation, and include a complete trial run of the five-stamp battery on a free milling gold ore.

The subjects available for thesis work are very numerous, and range from purely theoretical investigations in classification, concentration, etc., to the experimental determination of the best methods of treatment of ores and coals. Over one hundred lifferent lots of ore are available, and the quantities are sufficient for work on a comparatively large scale.

## TEXT BOOKS :-

No set text books are used, but students are recommended to freely consult the following works of reference, in addition to the special references given from time to time: Sir C. LeNeve Foster's Ore and Stone Mining, H. W. Hughes' Text Book of Coal Mining; Ihlsing's Manual of Mining; R. H. Richard's Ore Dressing; T. A. Rickard's Stamp Milling of Gold Ores: H. Louis' Handbook of Gold Milling; T. K. Rose's Metallurgy of Gold; M. Eissler's Metallurgy of Gold; H. F. Collins' Metallurgy of Silver; James Cyanide Practice; The Coal and Metal Miners' Pocket-book.

# Post-Graduate Courses.

Special courses in advanced work are also offered in both Mining and Ore Dressing, and these courses, owing to the very complete equipment of the laboratories, as detailed elsewhere, can be made exceedingly valuable, both theoretically and practically.

# LABORATORIES.

During the first three years of the course the students do systematic work in the several workshops and laboratories of the other departments. During the last half of the third and the whole of the fourth year they spend a large proportion of their time in the special laboratories for Ore Dressing and Metallurgy. (See pp. 263 and 264.) In these, the general method is first to conduct before the whole class a limited number of important typical operations, and then to assign to each student certain methods which he must study out in detail, and upon which he must experiment and make written report. In this work he is guided by the professors and demonstrators.

and assisted by the other students, whom he must in turn assist when practicable. In this way every student acquires detailed knowledge of certain typical operations and a fair general experience in many of the important methods in use.

# Illustrations, Museums, Societies, Etc.

In addition to a large series of lantern slides, the department owns a collection of about thirty-five hundred photographs and other illustrations. This collection is constantly being enlarged.

The Museums of the building contain suites of ores, concentrates, fuels and metallurgical materials, models of mines

and furnaces, and specimens of finished products.

The McGill University Mining Society meets to read and discuss papers by graduate and student members, and from time to time to hear lectures given by gentlemen eminent in the profession. Special arrangements are made whereby students may attend meetings of the mining section of the Canadian Society of Civil Engineers, and members of the Mining Society are privileged, for a nominal fee, to become student members, and to receive all the publications of the Society.

The Society has recently been made a students' section of the Canadian Mining Institute, and its undergraduate members are therefore student members of the Institute, and receive all its publications. Papers read before the Mining Society may be entered in competition for any students' prizes offered either by the Can. Soc. Civil Engineers or by the Can. Mining Institute. See pp. 40 and 44.

# FIELD SCHOOL IN MINING.

The summer vacation class instituted in 1897 is now a fixed part of the course. All students of Mining in regular course are required to attend this class at the end of the third year.

The school lasts about six weeks. Of this period about one-sixth is given to field work in geology, one-half or more to mining work proper, and the remainder, when practicable, to an examination of ore dressing and milling plants and metallurgical establishments. The professor of mining and his

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assistant go with the party and hold daily demonstrations or classes. The students take notes and sketches on the ground, and afterwards are required to work up these notes and to submit a formal report on some part or the whole.

The work in Metallurgy and Geology is carried on by officers of these departments, who attend the school for this purpose, and in certain cases it may be found practicable to permit students especially interested in these subjects to substitute additional work in them for a portion of the Mining.

During the last eight years the school has been held twice in British Columbia, twice in Nova Scotia and three times in the United States. In 1906 it was held in Cape Breton and Newfoundland.

The instruction given during this field course is free to all mining students, the only expense to them being the cost of board, lodging, and railway fares. These expenses are kept as low as is practicable and are in part met by the income of a fund provided by Sir William Macdonald, from which deserving students who require aid can also have money advanced them by applying to the Professor of mining.

# 14. Physics (Experimental).

PROFESSORS:—JOHN CON, M.A., LL.D.

E. RUTHERFORD, M.A., D.Sc., F.R.S.

ASSOCIATE PROFESSOR:—H. T. BARNES, M.A.Sc., D.Sc.

Demonstrators:—R. K. McClung, M.A., D.Sc. (Senior.

H. L. Bronson, Ph.D.

R. W. Boyle, M.Sc.

# Undergraduate Courses.

The instruction includes a fully illustrated course of experimental lectures on the general principles of Physics (embracing, in the first year, The Lates of Energy—Heat, Light, and Sound; in the second year, Electricity and Magnetism), accompanied by courses of practical work in the laboratory, in which the students will perform for themselves experiments, chiefly quantitative, illustrating the subjects treated in the lectures. Opportunity will be given to acquire experience with all the principal instruments used in exact physical and practical measurements.

## LABORATORY COURSE.

FIRST YEAR. — Three hours per week spent in practical measurements in the Macdonald Physical Laboratory in conjunction with the lecture courses and in accordance with the following outline:—

Sound.—Velocity of sound; determination of rates of vibration of tuning forks; resonance; laws of vibration of strings.

Light.—Photometry; laws of reflection and refraction; focal lengths and magnifying powers of mirrors, lenses, telescopes and microscopes; the sextant; spectroscope, spectrometer, diffraction, grating, optical bench, polariscopes.

Heat.—Construction and calibration of thermometers; melting and boiling points; air thermometer; expansion of solids,

liquids and gases; calorimetry; pyrometry.

Text Books:—Deschanel, Part IV, or Ganot; Jones, Sound, Light and Heat; Wright, Heat; Tory and Pitcher, Laboratory Manual; Chandler, Laboratory Manual.

Magnetism and Electricity.—Measurements of pole strength and moment of a magnet; the magnetic field; methods of deflection, and oscillation; comparison of moments and determination of the elements of the earth's magnetism; frictional electricity.

Current Electricity.—A complete course of measurements of current strength, resistance, and electromotive force; calibration of galvanometers; the electrometer; comparison of condensers; electromagnetic induction.

Text Books:—S. P. Thompson, Electricity and Magnetism; Torv and Pitcher, Laboratory Manual.

Second Year. — An additional course of six weeks, involving four laboratory periods per week with lectures, will be given in May and June.

THIRD YEAR.—Students of Electrical Engineering will continue their work in the Physical Laboratory in the third year. The following is a brief outline of the course:—

Magnetic elements and measurements; use of variometers; testing magnetic qualities of iron; theory and practice of absolute electrical measurements; comparison and use of electrical standards of resistance, E. M. F., self-induction, and capacity; principles of construction of electrical instruments; testing and

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calibration of animeters, voltmeters and wattmeters; insulation and capacity tests; electrometers and ballistic methods; construction and treatment of storage cells; testing for capacity and rate of discharge; electric light photometry.

## ADVANCED COURSES.

The following are some of the sections in which special provision has been made for advanced physical work:—

Heat.—Thermometry:—comparison and verification of delicate thermometers; air thermometry; measurement of high temperatures; electrical resistance thermometers and pyrometers; thermo-electric pyrometers.

Calorimetry:—Mechanical equivalent of heat; variation of specific heat and temperature; latent heat of fusion and vaporisation; heat of solution and combustion; electrical methods; radiation and conduction of heat with special methods and apparatus; dynamical theory of gases; viscosity; surface tension; variation of properties with temperature.

Light.—Photometric standards; spectro-photometry; theory of colour vision; spectroscopy and spectrum photography; compound prism spectrometers; six inch and 2½ inch Rowland gratings; study of spectra of gases; fluorescence and anomalous dispersion; polarimetry; Landolt and other polarimeters; form of wave surface.

Sound.—Velocity in gases and various media; absolute determinations of period; harmonic analysis of sounds; effects of resonance and interference.

Electricity and Magnetism.—Magnetic properties; influence of stress and torsion; influence of temperature; effects of hysteresis; magneto-optics; other effects of magnetisation; diamagnetism; electrical standards and absolute measurements; calibration of electrical instruments; insulation and capacity testing; electrometer and ballistic methods; temperature, variation of resistance, and E.M.F.; thermo-electric effects; electrolysis; chemistry of primary and secondary batteries; resistance of electrolytes; polarisation; electric discharge in gases and high vacua; dielectric strength; behaviour of insulators under electric stress, specific inductive capacity; alternating currents of high frequency and voltage; electrical waves and oscillations; conductivity of gases, and radio-activity.

Professor Cox will give a special course of lectures to advanced and post-graduate students, on "the relations between optics, electricity and magnetism"; Prof. Rutherford will give a course on "Radio-Activity"; and Dr. Barnes will give a course on "Advanced Heat Measurements."

N.B.—Students taking a post-graduate course will receive guidance in any advanced Mathematics required in connection with their work.

# 15. Surveying and Geodesy.

PROFESSOR:—C. H. McLeod, Ma.E.
Assistant Professor:—J. G. G. Kerry, Ma.E.
Lecturer:—John B. Harvey, B.Sc.
Demonstrators:—

G. Eric McCuaig, B.Sc.

This course is designed to give the student a theoretical and practical training in the methods of land and geodetic surveying, in the field work of engineering operations, and in practical astronomy. The course is divided as follows:—

Second Year.—Chain and angular surveying; the construction, adjustment, use and limitations of the various instruments; underground surveying; topography, levelling; contour surveying; simple curves and setting out work; descriptions for deeds; general land systems of the Dominion and Provinces. Mr. Kerry.

Third Year.—Construction surveying, including the location of roads, transition curves, setting out work and calculation of quantities; geodetic, trigonometric and barometric levelling; topographic and photographic surveying; hydrographic surveying; introduction to practical astronomy; graphical determination of spherical triangles, spherical projections, construction of maps; mathematical perspective and the perspective of shades and shadows. Professor McLeod.

In the field the students of the second and third years are required to carry out the following:—(1) A chain survey.
(2) a chain and compass survey; (3) a pacing survey; (4) a compass and micrometer survey; (5) a contour survey; (6) a plane table survey; (7) a survey and location of a line of road, with determination of topography and contours, and subsequent

staking out for construction; (8) a hydrographic survey of a river channel, including measurement of discharge; (9) a survey at night illustrating underground methods; (10) astronomical observations with sextant and engineer's transit.

All students are required to keep complete field notes, and to prepare maps, sections and estimates.

The large drawing rooms are furnished with fixed mountings for the various instruments, in order to permit of their use and investigation during the winter months.

FOURTH YEAR.—Practical Astronomy:—the determination of time, latitude, longitude and azimuth. Geodesy:—figure of the earth; measurements of base lines and triangulation system; adjustments and reductions of observations.

The field work of the fourth year consists in the measurement of a base-line, in triangulations and precision levelling.

The practical work in astronomy (for equipment of observatory see p. 261) comprises: (1) Comparisons of clocks and chronometers; (2) determination of meridian by solar attachment; (3) meridian, latitude and time by solar and stellar observations with the engineer's transit; (4) latitude and time by sextant; (5) time by astronomical transit; (6) latitude by zenith telescope; (7) latitude by transit in prime vertical.

Field work is required of all students of the second year (except those taking the Practical Chemistry Course), of students of the third year in the courses of Civil and Mining Engineering, and of the fourth year in the Civil Engineering course. The work will begin in 1906 on 20th August, and will continue for a month.

Exercises in the geodetic laboratory (for equipment see page 260), carried out in the fourth year, include the following: — (1) Measurement of magnifying power: (2) determination of vernier errors; (3) errors of graduation: (4) measurement of eccentricity of circles: (5) determination of errors of run of theodolite microscopes: (6) investigation of the errors of a standard bar: (7) graduating scales with the dividing engine, and comparison thereof on the comparator: (8) investigation of the errors of circles on the circular comparator: (9) determination of the constants of steel tapes; (10) investigation of the graduation errors of

steel tapes on the fifty-foot comparator; (II) investigation of the errors of level tubes, and determination of their scale values; (I3) measurement of the force of gravity with a reversible pendulum.

The equipment of the surveying department comprises the following, in addition to the apparatus of the observatory and geodetic laboratory:—Forty-eight transit theodolites by various makers, with solar and mining attachments; a phototheodolite; an 8-in. alt-azimuth; twenty-four dumpy and nine wve levels: hand levels and clinometers; three precision levels; thirteen surveyor's compasses; one miner's dial; three prismatic compasses; pocket compasses; two solar compasses; artificial horizons; box sextants; two reflecting circles; seven plane tables; six current meters: Rochon micrometers; double image ineters; field-glasses; two heliotropes: several barometers; 300 ft. and 500 ft. steel tapes suitable for base measurements; steel chains and steel bands; linen and metallic tapes; sounding lines; pickets; levelling rods; micrometer targets; slope rods; pedometers; station pointer, pantographs, planimeters, slide rules and minor appliances.

EXAMINATIONS FOR LAND SURVEYORS:—Any graduate in the Faculty of Applied Science in the Department of Civil Engineering and Land Surveying, may have his term of apprenticeship shortened to one year for the profession of Land Surveyor.

Text Books:—Gillespie's Surveying, Johnson's Theory and Practice of Surveying, Shortland's Nautical Surveying, Greene's Practical and Spherical Astronomy, Nautical Almanac, Baker's Engineers' Surveying Instruments.

# Roads, Railways and Canals.

The lectures will embrace:—

(a) Common roads and streets.—Provision made for them in settling up land; the traffic for which they are suited, and the cost of hauling over different surfaces; the materials used in construction and the merits and cost of the various systems.

- (b) Canals and rivers.—The Canadian canal system; the methods and cost of construction and maintenance; the traffic it is designed to carry; and the cost of transportation.
- (c) Steam railroads.—The traffic they serve and the cost of handling it; the details of location and the influence of physical features and trade possibilities upon it; the cost and design of construction; the duties of the engineer upon such work; the appliances at present in use for safe and speedy handling of traffic.
- (d) Electric roads.—The traffic which they now earry; their location and construction; the reasons for their rapid extension, and their probable future.

The questions of the development and applying of motive power and the various appliances, mechanical and electrical, now in use for these special purposes, are taken up in the mechanical and electrical departments. Mr. Kerry.

# 16. Transportation.

PROFESSOR:—CLARENCE MORGAN, B.A. (HARVARD).

THIRD YEAR. (Operating and Executive.)

Mathematics.—Analytic Geometry, Calculus and Dynamics.

English.—The preparation and criticism of reports on stated subjects, the object being to acquire a clear and accurate style.

French.—Conversation of a practical character.

Economics. — Economic theory, with special reference to the organization of modern commerce and industry, railways and their development, essay writing, the preparation of reports and discussion of practical problems leading to more advanced and specialised studies.

Mechanical Engineering. — Elementary course on the steam engine and boiler, with laboratory work.

Civil Engineering.—The theory of railway location and construction; maintenance of way and structures, with problems in drafting.

Graphical Statics.—Problems in beams, cranes, derricks, roof trusses, ear-framing, etc.

- Structural Engineering with Drafting.—Foundations; bearing power of soils, piles, dams, open dredging, pneumatic and freezing processes, design of beams, girders, columns, footings, piers, taking off quantities from drawings, estimates of cost.
- Strength of Materials, with laboratory work. Study of the strength and resistance of materials as applied to beams, columns, shafts, foundations, etc.
- Railway Organization.—Organization and work of the various departments; duties of the officers.
- Freight Service. The freight department and the methods of conducting it, records, etc.; a full explanation of the methods and means of handling freight.

FOURTH YEAR. (Operating and Executive.)

English.—Continuing the work of the Third Year.

French.—Continuing the work of the Third Year.

- Economics.—Railways and the State; public aid to railway construction; taxation and regulation.
- Chemistry of waters, oils and paints. Boiler incrustations, corrosion and pitting; simple laboratory methods for determining scale-forming constituents, hardness, acidity, etc.
- Physical Geography and Climatology. Geographical subdivisions of the country; mineral areas; timber belts; wheat areas and water powers; irrigation; climatology and its relations to occupations and soil products.
- Law.—Lectures on the Railway Act; contracts; responsibilities of public carriers.
- Electric Traction.—Lectures and laboratory work on present development of electric locomotive, trolley, conduit and third rail systems.
- Passenger Service.—The passenger department, its organization, methods and general principles governing passenger business; baggage system; mail and express.
- Operating. General description of operation of railways; organization; duties of various employees; train service; equipment and train orders; time tables; signals; despatching, etc.

Accounting. — Principles of accounting. Stati-tics, their nature and value.

Shops.—Their design, equipment and practice.

This course will supplement to some extent that given in the third year Mechanical Engineering, and will be illustrated by visits to the shops in the neighbourhood of Montreal.

Terminals, Yards, Stations, etc.—A continuation of the third year course in Civil Engineering, and will include drafting room work and problems in the laying out of terminals, yards, etc.

# 17. Shopwork.

#### Instructors.

CARPENTER SHOP AND PATTERN SHOP
SMITH SHOP
FOUNDRY II. LANE.
MACHINE SHOP A. W. MILLER

The course in shopwork is intended to afford some preparation for that study of workshop practice on a commercial scale which every engineer has to carry out for himself. With this end in view, the student works in the various shops of the department, and completes in each a series of practical exercises. He thus obtains some knowledge of the nature and properties of the various materials he employs; he becomes familiar with the use and care of the more important hand and machine tools; and he acquires some manual skill.

The instruction thus obtained must, however, be continued an supplemented. For this purpose students are expected to spend the greater partion of each long vacation in gaining practical experience in some engineering workshops outside the University.

Throughout the course, advanced students are as far as possible entrusted with the construction and erection of machinery and apparatus which afterwards form part of the equipment of the department. An air-compressor, a boring bar, a belt-testing machine, and a duplex feed pump, are ex-

amples of the work which has been done in this manner. Such students are also encouraged to see and assist in the repairs required by the engines, boilers and machine tools in the engineering building.

The work of the various shops is carried out under the direction of the Professor of Mechanical Engineering. The following are the subjects of instruction:—

Carpentry and Joiner Work.—Sharpening and care of woodworking tools; sawing, planing and paring to size; preparation of flat surfaces, parallel strips, and rectangular blocks; construction of the principal joints employed in carpentry and joiner work, such as end and middle lap joints, end and middle mortise and tenon joints, mitres, and dado and sash joints: dovetailing; scarfing; joints used in roof and girder work; wood-turning; use of wood-turning tools.

Pattern making. — Use of pattern-makers' tools; elements of pattern-making; allowances to be made for draught and for contraction in moulding and casting; use of contraction rule; preparation of prints and plain core-boxes; exercises in paring and turning; construction of patterns and core boxes for pipes, flanges, elbows, tees, and valves; more difficult exercises in pattern-making, including built-up patterns and face-plate work; gear and wheel patterns.

Smith-work. — The forge and its tools; use and care of smiths' tools; management of fire; use of anvil and swage-block; drawing taper, square and parallel work; bending, upsetting, twisting, punching, and cutting; welding and scarfing; forging, hardening, and tempering tools for forge and machine work; tempering drills, dies, taps, and springs.

Foundry-work. — Moulders' tools and materials used in foundry work; the cupola; the brass furnace; preparation of moulding sand; boxes and flasks; core-making; use of coreirons; bench moulding; blackening, coring and finishing moulds; vents, gates and risers; special methods required in brass moulding; floor moulding; open sand work; advanced examples of moulders' work; melting and pouring metal; mixtures for iron and brass casting.

Machine-shop Work.—Exercises in chipping; preparation of flat surfaces; filing to straight edge and surface plate; scraping, screwing and tapping; use of scribing block and surface gauge; marking off work for lathes and other machines; turning and boring cylindrical work to gauge; surfacing; screw-cutting and preparation of screw-cutting tools; use of turret lathe; taper turning; machining flat and curved surfaces on the planing and shaping machines; plain and circular milling with vertical and horizontal spindles; gear-cutting; cutter-grinding; drilling and boring; use of jigs; grinding flat and cylindrical surfaces; cutting tools for hand and machine; their cutting angles and speeds; dressing and grinding tools.

# INFORMATION FOR STUDENTS IN LAW.

THE SESSION 1906-1907 WILL OPEN ON TUESDAY, SEPTEMBER 11TH, 1906.

The lectures are delivered in the rooms furnished for the Faculty in the east wing of McGill College by its munificent benefactor, Sir Wm. C. Macdonald.

Students have the free use of the Law Library of the Faculty, to which large additions are continually being made, those lately added including, among many others, Reports, the Nova Scotia the Ontario Dalloz, Recueil Périodique, Campbell's Ruling Cases, the Encyclopædia of the Laws of England, the new series entitled "The English Reports," the American and English Encyclopædia of Law and the American and English Encyclopædia of Pleading and Practice. It is hoped that before long this Library will contain all the Reports of the several Provinces of Canada. The principal reports and legal periodicals are taken. A special room for Law students is provided in the University Library. This room is open during the day, and in the evenings from eight to ten o'clock.

Particulars regarding the following points will be found on the pages named:—

Pa	ge.
Fees	54
Matriculation *	19
Medals and Prizes	
Registration	47
For Time Tables of Lectures, see first part of Calendar.	

<sup>\*</sup> The attention of students who intend to practise law in the Province of Quebec, or to be admitted to the notarial profession, is called to the statutory requirements for admission to study. These will be found on pp 215 to 218.

#### SPECIAL REGULATIONS.

1. The Register of Matriculation shall be closed on the 1st of October in each year, and return thereof shall be immediately made by the Dean to the Registrar of the University. Candidates applying thereafter may be admitted on a special examination to be determined by the Faculty; and, if admitted, their names shall be returned in a supplementary list to the Registrar.

2. The lectures will be delivered between the hours of half-past 8 and half-past 9 in the morning, and between 4 and half-past 6 in the afternoon; and special lectures in the evening at such hours and in such order as shall be determined by the Faculty. Professors shall have the right to

substitute an examination for any such lecture.

3. Undergraduates shall be known as of the first, second, and third year, and shall be so graded by the Faculty. In each year, students shall take the studies fixed for that year, and those only, unless by special permission of the Faculty.

4. At the end of each college year there shall be a general examination of all the classes, under the superintendence of the Professors, and of such other examiners as may be appointed by the Corporation. The examination shall be conducted by means of printed questions, answered by the students in writing in the presence of the examiners.

- 5. At the end of the third college year there shall be a final examination of those students who have completed the curriculum. This examination shall be conducted by written papers, which may be supplemented by an oral examination. It shall cover all the subjects upon which lectures have been delivered during the three years' course. Those students who satisfy the examiners shall be entitled, after making the necessary declaration and payment of the Graduation Fee, to proceed to the Degree of B.C.L. There shall be no sessional examination of students who are candidates in the final examination.
- 6. No student shall be considered as having kept a session unless he shall have attended regularly all the courses of lectures, and shall have passed the sessional examinations to the satisfaction of the Faculty in the classes of his year.

- 7. The Faculty shall have the power, upon special and sufficient cause shown, to grant a dispensation to any student from attendance on any particular course or courses of lectures, but no distinction shall in consequence be made between the examinations of such students and those of the students regularly attending lectures.
- 8. Every candidate, before receiving the degree of B.C.L., shall make and sign the following declaration:—

Ego A.B. polliceor sancteque recipio, me, pro meis viribus, studiosum fore communis hujus Universitatis boni, et operam daturum ut ejus decus et dignitatem promoveam, et officiis omnibus ad Baccalaureatus in Jure Civili gradum pertinentibus fungar.

9. On the following days, when they fall within the session, no lectures will be delivered, viz.: Ash Wednesday, Good Friday, Easter Monday, and Thanksgiving Day. On the following days the morning lectures will be omitted, viz.: All Saints' Day (Nov. 1st), and Conception Day (Dec. 8th).

#### ADVISORY COMMITTEE.

The attention of the McGill Law Faculty has been drawn to the fact that students commencing their undergraduate course frequently need information with regard to law offices in which their services would be welcomed. For the purpose of furnishing such information and also of assisting the graduates of the Law school to obtain suitable positions in offices needing legal assistance, a number of members of the Bar have been kind enough to form themselves into an Advisory Committee. Members of the Bar desiring the assistance of students or young graduates are requested to communicate with the Secretary of this Committee, Mr. C. M. Cotton, B.A., B.C.L., of the firm of Casgrain, Mitchell and Surveyer. The Committee consists of the following gentlemen:—

C. J. Fleet, B.A., B.C.L., K.C.; W. J. White, M.A., D.C.L, K.C.; E. E. Howard, B.A., B.C.L.; Lawrence McFarlane, B.A., B.C.L.

## THE COURSE OF STUDY.

The Curriculum extends over three years. It includes lectures upon all the branches of the Law administered in the Province of Ouchec, and also upon Roman Law, Legal History, and the Constitutional Law of England, and of the Dominion. Its primary design is to afford a comprehensive legal education for students who intend to practise at the Bar of the Province. In all the courses the attention of students is directed to the sources of the Law. and to its historical development. During their first year the students will attend one hundred lectures on Roman Law, from which the law of this Province is in great part derived. In the lectures on Legal History, the lustory of our law since the Cession, and its relations to the French and to the English law, will be explained. First year students will also attend courses on the Law of Persons; the Law of Real Estate; the Law of Obligations; the elementary rules of Procedure; and an introductory course on Criminal Law. A new feature of the first year curriculum is a practical course on Pleading. with numerous exercises in drafting. This course will be given in French. The remaining branches of law, civil, commercial, and criminal, will be dealt with in the second and third years. During the three years the Civil Code, the Criminal Code, and the Code of Civil Procedure will be covered, and lectures will also be given upon subjects, such as Bills of Exchange, Merchant Shipping, and Banking, which are regulated mainly by special statutes.

The Faculty desire to impress upon English students the great importance of obtaining a familiar knowledge of French. In the practice of the profession in this Province it is indispensable that a lawyer shall be able to write and speak French. The Faculty are determined to exact a high standard in this subject, and have passed a new regulation to secure this end (see page 20). Moot Courts are held from time to time in order to afford practice in the presentation of legal arguments.

Those students who are able to take the B.A. course before entering upon their legal studies are strongly recommended to do so. Those for whom this is impossible are

advised to attend courses in the Faculty of Arts for two years.

COURSES OF LECTURES.

#### Roman Law.

PROFESSOR:-F. P. WALTON, B.A. (Oxon), LL.B. (Edin.).

During the first part of the course the external history of the law from the early period to the codification of Justinian will be dealt with. The sources of the law will be described, and the gradual evolution explained by which the law of the city of Rome became fitted to be the law of the civilized world. A brief sketch will be given of the legal institutions of Rome in the first period and of the early constitutional history.

In the doctrinal part of the course matters mainly of antiquarian interest will be touched on but slightly. Those portions of the Roman Law which have been followed most closely in the existing law of the Province, e.g., property, servitudes, pignus and hypothec, and obligations, will be treated in detail, and the modifications made by the modern law will be noticed. Class-examinations will be held from time to time, and a first and second prize in books will be given to the two students who obtain the highest marks in these examinations.

Text-books—For the historical part, Walton's Historical Introduction to the Roman Law; and for the Institutes, Moyle's or Sandar's Institutes of Justinian, or Girard, Manuel de Droit Romain.

# Books of Reference:

Muirhead's Historical Introduction to Roman Law; Muirhead's Institutes of Gaius; Maynz, Cours de Droit Romain; Puchta, Institutionen; Maine's Ancient Law.

## Constitutional and Administrative Law.

PROFESSOR:—F. P. WALTON, B.A. (Oxon), LL.B. (Edin.).

The object of this course is to shew the actual working of the Canadian constitution. A sketch of the constitutional history prior to Confederation is given. The B. N. A. Act is explained, and the leading cases discussed

which illustrate the respective powers of the Federal and of the Provincial Legislatures. The growth of Cabinet Government is traced, and some of the fundamental rules of the English Constitution are expounded and contrasted with those followed in other countries.

No text-book is prescribed, but students are recommended to refer to Todd, Parliamentary Government in the British Colonies; Houston, Constitutional Documents of Canada; Dicey, Law of the Constitution; Anson, Law and Custom of the Constitution.

## Obligations-Advanced Course.

PROFESSOR: -F. P. WALTON, B.A. (Oxon), LL.B. (Edin).

Two alternate courses are delivered to students of the second and third years.

Their object is to explain important parts of the law of obligations in more detail than is possible in the general course on the subject.

The method is mainly the explanation of illustrative cases. Frequent references are made to French and English decisions.

# Legal History and Bibliography.

PROFESSOR: -A. McGoun, M.A., B.C.L., K.C.

This course comprises an outline of the history of the law in force in the Province of Quebec.

The main source from which our law is derived is the Customary Law of France, as modified by the principles of Roman Law, embodied in several of the codes or collections of Roman Law before the time of Justinian. The Customs of France after being reduced to writing were further modified by the influence of modern Roman Law, which prevailed throughout the larger part of France. The ordinances of the French kings and the commentaries of the great jurists, from Cujas and Dumoulin down to Pothier, brought the Civil Law of France into the systematic form in which it was introduced into this Province. The Custom of Paris, one of the most important of those recognized in France, became formally the basis of the Civil Law in this country, and the ordinance of 1667 was the main authority for procedure.

Since the opening of the British régime the development of Lower Canadian Civil Law has proceeded independently of the Civil Law of France, where the Code Napoléon was passed early in the Century. In Lower Canada a code on the same lines was adopted shortly before Confederation. Lower Canadian Civil Law has been modified by English Law in commercial matters, and also by statutes passed in the Province. The Criminal Law has been derived almost exclusively from the Criminal Law of England.

The leading authorities upon the main branches of the law, with the reports of decisions of our courts, are brought

under the attention of the students in this course.

# Agency and Partnership.

PROFESSOR: -A. McGoun, M.A., B.C.L., K.C.

This course begins with the principles of the law of Mandate, as laid down in the Civil Code of Lower Canada, and treats of Civil and Commercial Agency. The rights and liabilities of principal and agent both between themselves and in relation to third parties is considered, and special attention is directed to the powers of agents in selling, pledging, and dealing with the property of the principal. The law relating to factors or commission merchants, brokers, and other agents is explained.

In partnership the right of each partner to bind his fellow partner in virtue of the mandate reciprocally given and enjoyed, leads to the distinction between civil and commercial partnership, and the limited partnership, or société en commandite, is also treated of. The distinction between partnership and joint stock companies leads to a consideration of the connexion between this subject and the subject of Companies and Corporations which form the subject matter of a course in alternate years on the Law of Corporations and of Joint Stock Companies, as follows:

# Law of Corporations and of Joint Stock Companies.

This course is the sequel of the course on Agency and Partnership. The doctrine of limited liability, and the opportunity which it affords of carrying out enterprises of great importance, by means of capital contributed by a large number of individuals, is treated of in this course. The growth of corporations, both those established by long custom, and those created by Royal Charter, or by parliamentary or legislative authority, is also explained, as well as the relation between these corporations and the ordinary forms of joint stock companies. Corporations sole and corporations aggregate are defined, and the principles of laws relating to corporations and companies explained.

#### Criminal Law.

PROFESSOR: - HON. C. P. DAVIDSON, M.A., D.C.L.

This course includes:

A history of the Criminal Law and Criminal Procedure of England, and of their introduction into and development throughout Canada; discussion of the Criminal Code and other statutes enacting criminal offences; of the rules of evidence in criminal cases; of the Fugitive Offenders' Act; of extradition; and, generally, of the principal features belonging to the Criminal Law of the Dominion.

#### Commercial Law.

PROFESSOR: -R. C. SMITH, B.C.L., K.C.

The subjects dealt with will include commercial sales, bills and notes, the law of carriers, the law of insurance and the law of banks and banking.

- 1. The course on Carriers will cover:
- (a) Carriers, contracts with: (b) affreightment; (c) merchant shipping; (d) bottomry and respondentia.
  - 2. The course on Insurance will cover:
- (a) Insurance, contracts of; (b) marine insurance; (c) fire insurance; (d) life insurance.

## Civil Procedure.

LECTURER: -G. W. MACDOUGALL, B.A., B.C.L.

This course to the students of the first year is intended to form an introduction to the subject, to explain the simpler kinds of actions, the general rules of pleading, and the jurisdiction of the several courts.

The revised Code of Civil Procedure for the Province of Quebec is the text-book.

#### Person.

LECTURER: -G. W. MACDOUGALL, B.A., B.C.L.

This course covers the Law of acts of civil status, absentees, marriage, separation, divorce, filiation, minority and interdiction.

## Civil Proceiure.

LECTURER: -- PERCY C. RYAN, B.C.L.

The advanced course for the second and third years covers all matters of procedure not dealt with in the first year course, and includes provisional remedies, such as capias, attachment before judgment, injunction, etc., and special proceedings, such as proceedings relating to corporations, and public offices, mandamus, etc., as well as the rules of pleading in the more complicated classes of action. The course also includes an explanation of the chief rules of the law of evidence. It will be divided into two parts, which will be taken in alternate years.

Marriage Covenants and Minor Contracts, Prescription, Lease, and Municipal Law.

Professor:—A. Geoffrion, B.C.L.

Two courses—in alternate years.

Successions, Gifts, and Substitutions.

Professor:—Hen. C. J. Doherty, D.C.L.

Two courses—in alternate years.

I. The Law of Succession.

The course consists of a commentary and explanation of , the whole of Title I, and the Third Chapter of Title II of the Third Book of the Civil Code. The order followed by the Code in dealing with the different matters coming within the scope of this course, has however been departed from, with a view of presenting to the student the law governing successions as one whole. The subject will be developed as nearly as possible in the following order:—

(1) General notions, definitions, and divisions of the subject; (2) the testamentary succession; (3) the ab-intestate succession; (4) rules of law common to both successions; (5) rules peculiar to the testamentary succession; (6) rules peculiar to the ab-intestate succession; (7) partition of the succession (and of property held in undivided ownership generally), its incidents and effects.

## II. Gifts and Substitutions.

This course comprises a commentary on and explanation of Chapters I, II, and IV of Title II of the Third Book of the Civil Code, dealing with:

(1) Gifts inter vivos; (2) gifts in contemplation of death, as permitted in contracts of marriage; (3) substitutions.

## Real Property Law and Registration.

PROFESSOR: -W. DE M. MARLER, B.A., D.C.L.

First Year Course—25 lectures.

Distinction of things — corporeal moveables and immoveables; immoveables by incorporation and destination; incorporeal property; real and personal rights.

Ownership—its characteristics and limitations; possession, good and bad faith; possessory actions; the petitory action; their results on the possessor; accession, natural and industrial.

Usufruct—general characteristics; fruits and their perception; quasi-usufruct; modes of enjoyment by usufructuary; his duties before and during usufruct; how terminated.

Registration—its modes and formalities; the cadastral system.

Second and Third Year Courses—50 Lectures in alternate Courses.

First Course: — Mode of acquisition of immoveables — 25 lectures.

In this course, a deed of sale will be analyzed and its various clauses explained: the parties; the description and the measurement of land; the obligations of buyer and seller and the security for their performance; warranty, its molifications

and results; the form and registration of the deed; the rights of the wife; the distinctions between sale and other modes of acquisition, and their effects on the parties.

Forced sales, their incidents and results.

Examination of titles, practically considered.

Second Course:—Privileges and hypothecs; servitudes—25 lectures.

Debts and causes of preference; characteristics of hypothecs—the various kinds, their history, conditions and effects; the ranking of hypothecs; the hypothecary action, its characteristics, incidents and results; privileges on immoveables; registration of privileges and hypothecs; servitudes—natural, legal and conventional; water courses and streams; walls and fences.

#### Public International Law.

PROFESSOR:—E. LAFLEUR, B.A., D.C.L., K.C.

Sovereignty and equality of independent states; recognition of belligerency and independence; justifiable grounds of intervention; modes of territorial acquisition; territorial boundaries; doctrine of exterritoriality; treaties and arbitrations; laws of war; neutrality of states and of individuals; laws of blockade; contraband; confiscation; prize-courts and their jurisprudence.

The students' attention will be specially directed to treaties, diplomatic relations, and international arbitrations, in which Canada is directly concerned.

#### Private International Law.

PROFESSOR: -E. LAFLEUR, B.A., D.C.L., K.C.

Distinction between the *a priori* and positive methods; sources of the positive law of Quebec on the subjects; application and illustrations of the rules for solving conflicts of law in regard to the different titles of the Civil Code; comparisons between our jurisprudence and that of England, France and Germany.

These two courses will be given in alternate years.

## Pleading and Practice.

LECTURER: E. FABRE SURVEYER, B.A. (LAVAL), B.C.L.

This course of lectures deals with the different species of actions, their institution, summonses, preliminary pleas, defences, answers and replications (C. P. 76 to 214); provisional measures and special proceedings (C, P. 893 to 1125).

It includes the schedules to the various articles of the Code referred to above, and forms of the most common kinds of pleadings.

## REQUIREMENTS FOR THE DEGREE OF D. C. L.

(Adopted March, 1891.)

Every candidate for the degree of D.C.L., in Course, must be a Bachelor of Civil Law of twelve years' standing, and must pass such examination for the degree of D.C.L. as shall be prescribed by the Faculty of Law. He shall also, at least two months before proceeding to the degree, deliver to the Faculty twenty-five printed copies of a thesis or treatise of his own composition on some subject, selected or approved by the Faculty, such thesis to contain not less than fifty octavo pages of printed matter, and to possess such degree of merit as shall, in the opinion of the Faculty, justify them in recommending him for the degree.

The examination for the degree of D.C.L., in Course, shall, until changed, be on the following subjects and authors, with the requirement of special proficiency in some one of the groups below indicated. In the groups other than the one selected by the candidate for special proficiency, a thorough acquaintance with two works of each group shall be sufficient, including in all cases the work first mentioned in each group and the first two works in the third group. In the first group one work on Public and one on Private International Law must be offered.

## 1. International Law.

A. Public:—
Twiss, Sir T., Law of Nations.
Hall, W. E., International Law.
Harcourt, Sir W. V., Letters by Historicus.
Ortolan, T., Diplomatie de la Mer.
De Martens, Droit International.
Holland, Studies in International Law.

## B. Private:-

Savigny, Private International Law (Ed. Guthrie).
Bar, Private International Law (Ed. Gillespie).
Foelix, Droit International Privé.
Laurent, Droit Civil International.
Brocher, Droit International Privé.
Fiore, Droit International Privé (Ed. Pradier-Fodéré).
Dicey, Conflict of Laws.
Story, Conflict of Laws.
Lafleur, E., Conflict of Laws.

## 2. Roman Law.

Maynz, Droit Romain.
Muirhead's Roman Law.
Girard, Manuel de Droit Romain.
Ortolan's Institutes (Ed. Labbé).
Saviony, Foman Law in the Middle Ages.
Cuq, Les Institutions Juridiques.
Puchta, Institutionen.
Krüger, Römische Rechtsquellen.
Roby's Introduction to the Digest.
Hunter's Roman Law.

## 3. Constitutional History and Law.

Cicey's Law of the Constitution.

Stubbs' Constitutional Law of England.

Hearn, Government of England.

Bagehot, English Constitution.

Franqueville, Gouvernement et Parlement Britanniques.

Gneist, Constitution of England.

Hallam, Constitutional History of England.

May, Constitutional History of England.

Gardiner, Constitutional History of England.

Freeman, Growth of the English Constitution.

Mill, Representative Government.

Anson, Law and Custom of the Constitution.

#### 4. Constitution of Canada and Works Relevant Thereto.

Todd, Parliamentary Government in the British Colonies.
Bourinot Federal Government in Canada.
Cartwright, Cases under the British North America Act.
Lord Durham's Feport on Pritish North America.
Lareau, Histoire du Droit Canadien.
Houston's Constitutional Documents of Canada.
Volume O., Statutes of Lower Canada.
Maseres' Collection of Quebec Commissions.
Viollet, Histoire du Droit Français.
Dilke, Froblems of Greater Britain.
Bryce, American Commonwealth.
Cooley, Principles of Constitutional Law.
Curtis, Eistory of the Constitution of the United States.

# 5. Criminal Law, Jurisprudence, and Political Science.

Stephen, Vistory of the Crimmal Law.
Blackstore, Vol. IV.
Harris, Principles of Criminal Law.
Holland, Elements of Jurisprudence.
Salmond's Jurisprudence.
Austin, Lectures, emitting chapters on Utilitarianism.
Lorimer's Institutes.
Amos, Science of Law.
Woolsey, Political Ethics.
Lieber, Political Ethics.
Lieber, Political Ethics.
Lreeman, Comparative Politics.
Ari-totle's Politics, Ly Jowett.

#### APPENDIX.

The attention of intending students is called to the following provisions of the Revised Statutes of Quebec and amendments, as bearing on the requirements for the study and practice of Law in the Province.

# I. Regulations Applicable to those who Intend to Become Members of the Bar.

Article 3544 R.S.Q.—Examinations for admission to study and to practise law in the Province of Quebec are held at the time and place determined by the General Council.

The examinations for the practice are held alternately in Montreal and Quebec every six months, namely—at Montreal, on the second Tuesday of each January, and at Quebec on the first Tuesday of each July.

All information concerning all these examinations can be obtained from the General Secretary's Office. The present General Secretary is Arthur Globensky, Esq., K.C., 97 St. James St., Montreal.

Article 3546.—Candidates must give notice as prescribed by this article at least one month for the study and fifteen days for the practice before the time fixed for the examination to the Secretary of the Section in which he has his domicile or in which he has resided for the past six months.

Article 3503a (added by Statute of Quebec, 1890, 53 Victoria, Cap. 45).—This article provides that candidates holding the diploma of Bachelor of Arts, Bachelier-ès-Lettres,

or Bachelier-ès-Sciences from a Canadian or other British University are dispensed from the examination for admission to study. Such candidates are required to give the notice mentioned above.

Article 3548 R.S.Q. (as altered by by-law of the General Council).—On giving the notice prescribed by Article 3546, the candidate pays the Secretary a fee of \$2, and makes a deposit of \$45 for a complete certificate of admission to study; of \$30 for a partial certificate of admission to study; and of \$70 for admission to practice, which deposit, less \$10, is returned in case of his not being admitted.

Article 3552 (amended 1894, Q. 57 Vic., c. 35)—To be admitted to practice, the student must be a British subject, and must have studied regularly and without interruption during ordinary office hours, under indentures before a notary as clerk, or student with a practising advocate, during four years, dating from the registration of the certificate of admission to study. This term is reduced to three years in the case of a student who has followed a regular law course in a university or college in this Province and taken a degree in law therein.

The by-laws passed by the General Council of the Bar of the Province of Quebec, 16th Sept., 1886, and amended 10th Feb., 1892, provide as follows:—

Art. 42.—A course of lectures on law given and followed at a university or college in this Province, and a diploma or degree conferred on students by such university or college, shall be held to be such as contemplated in Art. 3552 R.S.Q. only when the university or college conferring the degree and the student who receives it shall have efficiently followed the programme herein set forth. This article and article 44 shall apply to students already admitted only as regards lectures to be given after the 1st of January, 1887.

2. The subjects on which lectures shall be given, and the number of lectures required on each subject for a regular

course of lectures on law in a university or college shall be as follows:—

ROMAN LAW:—103 lectures: — This subject shall include an introduction to the study of Law and the explanation of and comments on the Institutes of Justinian and the principal jurisconsults of Rome.

CIVIL, COMMERCIAL, AND MARITIME LAW: — 413 lectures:—Lectures on these subjects shall cover at least three years. They consist of the history of French and Canadian law, the explanation of and comments on the Civil Code of the Province of Quebec and the statutes relating to Commerce and Merchant Shipping.

CIVIL PROCEDURE:—103 lectures: — Lectures on this subject shall extend over at least two years. It shall consist of the explanation of and comments on the Code of Civil Procedure and the statutes amending it, the organization of the Civil Courts of this Province and the history of the different judicial systems of the country; also, the special modes of procedure provided by statutes and laws of general application.

INTERNATIONAL LAW, Private and Public: -21 lectures.

CRIMINAL LAW:—69 lectures:—This subject includes the history of criminal law in Canada, the constitution of criminal courts, criminal procedure, comments on statutes relating to criminal law, the relation of criminal law in Canada to the criminal law of England. The lectures shall extend over two years.

ADMINISTRATIVE AND CONSTITUTIONAL LAW:—41 lectures,—These subjects include an inquiry into the different political institutions and the public institutions of the country, the powers, organization and procedure of the Federal Parliament and of the Local Legislature, the laws on Education and the Municipal Code.

Art. 43.—Candidates for practice who hold a degree in law from a university or college in this Province shall produce with their notices a certificate from the principal or rector of such university or college to the effect that

they followed a course of lectures on law in the same, during at least three years, in conformity with the by-laws of the Bar; and such certificate shall further specify the number of public lectures at which they shall have attended on each subject mentioned in the foregoing programme, during each of the said three years. The last part of this certificate shall only be required for courses of lectures given after the 1st January, 1897.

Art. 44.—The examiners shall not consider a university degree in law valid for the purposes of admission to the Bar if they find that the candidate has not in fact followed the programme above.

# II. Regulations Applicable to those who Intend to Become Notaries.

For the regulations applicable to the candidates for the Notarial Profession see Revised Statutes of Quebec, Arts. 3801-3833, and 53 Vict., c. 45 (Queb.).

# INFORMATION FOR STUDENTS IN MEDICINE.\*

The seventy-fifth session of the Paculty of Medicine will open on Wednesday, September 19th, 1906. The Introductory Lecture will be given on the 18th. Students may register on and after September 10th.

Particulars regarding the following matters will be found on the pages named:

17.	AGE.
Attendance and conduct	60
Double Courses (six years for degrees of B.A.	
or B.Sc. and M.D.)	
Fees	53
Matriculation	18
For Time Tables of Lectures, see first part of Cale	ndar.

## FOUNDATION AND EARLY HISTORY.

F

The Faculty of Medicine of McGill University is the direct outcome of the Montreal Medical Institution which was opened in November, 1824.

In the year 1829 the Montreal Medical Institution became, by a formal act of the Governors of the Royal Institution for the Advancement of Learning, the Medical Faculty of McGill University.

In 1872, the Faculty moved to the building which now forms the front block of the present Medical Buildings on the University Grounds.

This building was enlarged in 1885 to meet the demands for increased accommodation. It soon became evident that still further accommodation would be necessary in order to carry on the work efficiently, and through the generosity of the late Mr. John H. R. Molson extensive alterations were made in the old building and new wings built between 1893 and 1805.

<sup>\*</sup> Complete information on all points is given in the Special Calendar issued by the Faculty, which can be obtained on application to the Registrar.

These buildings were officially opened by His Excellency, the Earl of Aberdeen, on January 8th, 1895. In less than five years further enlargement was found to be necessary. This was rendered possible through the generosity of Lord Strathcona who, in 1898, contributed, in the names of Lady Strathcona and the Hon. Mrs. Howard, \$100,000 towards the necessary extensions and alterations. The new buildings, which are very complete and fully equipped, were formally opened by H. R. H. the Prince of Wales on September 19th, 1901. With the exception of the front block they are four stories in height. Their total length is 280 feet and their maximum width 145 feet. A full description of these buildings is given on page 250, and details regarding the laboratories will be found stated on pages 259 et seqq.

#### MATRICULATION.

The University Matriculation requirements are stated on pages 18 and 20 to 25.

Intending students are reminded that a degree in Medicine does not always give a right to practise.

Each province in Canada has special regulations in this connection. In most of them a standard of general education is insisted on as a preliminary. It is, therefore, necessary for a person to register with the Medical Council of the province in which he intends to practise, before entering on the study of Medicine proper. A certificate of such registration will exempt the holder from any further examination for entrance to this University.

The Registrars of the Medical Councils in the several provinces, from whom full particulars regarding admission to study can be obtained, are as follows:—

QUEBEC.—Dr. J. A. Macdonald, 250 Mountain St., Montreal, and Dr. C. R. Paquin, Quebec, P.Q.

Ontario.—Hon. R. A. Pyne, M.D., Department of Education, Toronto.

NEW BRUNSWICK.—Dr. Stewart Skinner, St. John.

Nova Scotia.— Dr. A. W. H. Lindsay, 241 Pleasant Street, Halifax.

PRINCE EDWARD ISLAND.—Dr. S. R. Jenkins, Charlottetown.

Manitoba.—G. J. Laird, Registrar University of Manitoba, Winnipeg.

Alberta and Saskatchewan. — Dr. J. D. Lafferty, Calgary, Alta.

British Columbia.—Dr. C. J. Fagan, Victoria.

#### FELLOWSHIPS.

Teaching and Research Fellowships are being established in connection with the various laboratories.

These fellowships are of the value of five hundred dollars per annum, are open only to graduates in Medicine, and are tenable for three years.

Two are now established in connection with the department of Pathology—a Governor's Fellowship, endowed by one or two of the Governors of the University, and a Faculty Fellowship, established by the Faculty.

# REGULATIONS FOR THE DEGREE OF M.D., C.M.\*

I. No one will be admitted to the degree of Doctor of Medicine and Master of Surgery who shall not have attended lectures for a period of four nine months' sessions in this University, or some other university, college or school of medicine, approved of by this University.

2. Students of other universities, so approved, who may be admitted on production of certificates to a like standing in this University shall be required to pass all examinations in Primary and Final Subjects in the same manner as students of this

University.

3. Graduates in Arts who have taken two full courses in General Chemistry, including laboratory work, two courses in Biology, including the subjects of Botany, Embryology, Elementary Physiology and dissection of one or more types of Vertebrata, may, at the discretion of the Faculty, be admitted as second year students, such courses being accepted as equivalent to the first year in Medicine. Students so entering will, however, not be allowed to pre-

<sup>•</sup> It should be understood that the programme and regulations regarding courses of study and examinations contained in this calendar hold good for this calendar year only and that the Faculty of Medicine, while fully sensible of its objections toward the students, does not hold itself bound to adhere absolutely, for the while four years to sudent's course, to the conditions here laid down.

sent themselves for examination in Anatomy until they produce certificates of dissection for two sessions.

4. Candidates for the final examination shall furnish testimonials of attendance on the following branches of medical education; provided, however, that testimonials equivalent to, though not precisely the same as those above stated, may be presented and accepted:—

Anatomy.
Practical Anatomy.
Physiology.
Practical Physiology.
Chemistry.
Pharmacology and Therapeutics.
Principles and Practice of Surgery.
Obstetrics and Diseases of infants.
Gynæcology.
Theory and Practice of Medicine.
Clinical Medicine.
Clinical Surgery.

Of which two full courses will be required.

Medical Jurisprudence.
General Pathology.
Hygiene and Public Health.
Practical Chemistry.
Ophthalmology and Otology.

Of which one full course will be required.

Biology.
Medical Physics.
Histology.
Applied Medical Chemistry.
Pathological Anatomy.
Bacteriology.
Mental Diseases.
Pediatrics.
Medical and Surgical Anatomy.

Of which one course will be required.

He must also produce certificates of having assisted at six autopsies, of having dispensed medicine for a period of three months, and of having assisted at twenty vaccinations. Courses of less length than the above will only be received for the time over which they have extended.

5. No one will be permitted to become a candidate for the degree who shall not have attended at least one full session at this University.

- 6. The candidates must give proof of having attended during at least twenty-four months the practice of the Montreal General Hospital or the Royal Victoria Hospital or of some other hospital of not fewer than 100 beds, approved by this University. Undergraduates are required to attend only the practice of the Out-Patient departments of the Hospitals during their second year.
- 7. He must give proof of having acted as clinical clerk for six months in Medicine and six months in Surgery in the wards of a general hospital recognized by the Faculty, of having reported at least 10 medical and 10 surgical cases.
- 8. He must also give proof by ticket of having attended for at least nine months the practice of the Montreal Maternity or other lying-in-hospital approved of by the University, and of having acted as assistant for at least six cases.
- 9. Every candidate for the degree must, on or before the 15th day of May, present to the Registrar of the Medical Faculty testimonials of his qualifications, entitling him to an examination, and must at the same time deliver to the Registrar of the Faculty an affirmation or affidavit that he has attained the age of twenty-one years.
- 10. The trials to be undergone by the candidate shall be in the subjects mentioned in Section 4.
- 11. The following oath or affirmation will be exacted from the candidate before receiving his degree.

## Sponsio Academica.

In Facultate Medicinæ Universitatis.

Ego. A———— B———, Doctoratus in Arte Medica titulo jam donandus, sancto coram Deo cordium scrutatore, spondeo:—me in omnibus grati animi officiis erga hanc Universitatem ad extremum vitæ halitum perserveraturum; tum porro artem medicam caute. caste, et probe exercitaturum; et quoad in me est, omnia ad ægrotorum corporum salutem conducentia cum fide procuraturum; quæ denique inter medendum, visa vel audita silere conveniat. non sine gravi causa vulgaturum. Ita praesens mihi spondenti adsit Numen.

#### EXAMINATIONS.

Frequent oral examinations are held to test the progress of the student, and occasional written examinations are given throughout the session.

The Pass and Honour examinations at the close of each session are arranged as follows:—

#### FIRST YEAR.

Examinations in Biology, Histology, Physiology, Anatomy, Medical Physics, Inorganic Chemistry, Practical Chemistry and Elementary Bacteriology.

Students who have taken one or more University courses in Biology or Chemistry before entering may be exempted from attendance and examination. Students exempted in these first year subjects are allowed only a pass standing, but may present themselves for examination if they desire to attain an honour standing. Students exempted from first year Chemistry must take second year Chemistry, in their first year.

#### SECOND YEAR.

Examinations in Anatomy, Organic Chemistry, Applied Medical Chemistry, Physiology, Practical Physiology, Pharmacology and Histology.

## THIRD YEAR.

Examinations in Pharmacology and Therapeutics, Medical Jurisprudence, Public Health and Preventive Medicine, Bacteriology, General Pathology, Clinical Microscopy, Obstetrics, Medicine, and Surgery.

#### FOURTH YEAR.

Examinations in Medicine, Surgery, Obstetrics, Gynæcology, Ophthalmology, Mental Diseases, Clinical Medicine, Clinical Surgery, Clinical Obstetrics, Clinical Gynæcology, Clinical Ophthalmology and Practical Pathology.

By means of the above arrangement a certain definite amount of work must be accomplished by the student in each year, and an equitable division is made between the Primary and Final branches.

A minimum of 50 per cent. in each subject is required to pass and 75 per cent. for honours.

Candidates who fail at the regular examinations in not more than two subjects of the first, second or third years, may take the supplemental examinations before the beginning of the following session. These examinations will be held during the week preceding the regular opening of the session.

Failure in more than two subjects at the regular examinations excludes the candidate from advancement and necessitates his repeating the work in the subjects in which he has failed.

Students who fail in both Physiology and Anatomy at the end of the second year are required to repeat their year.

No student may proceed to the work of the final year who has not passed the examinations in all subjects included in the curriculum of the first and second years.

Candidates who fail to pass in a subject in which practical work is required may, at the discretion of the examiner, be required to repeat the course and furnish a certificate of attendance thereon.

Students who fail in one subject only of the final year may, at the discretion of the Faculty, be allowed a supplemental examination in that subject. Should the subject be one in which practical or clinical work is required, the student must furnish a certificate of additional hospital attendance or laboratory work before presenting himself for examination.

Students who fail at the examinations held at Christmas or Easter may, at the discretion of the examiners, be granted supplemental examinations at a period not less than three months after the regular examination.

Supplemental examinations will not be granted except by special permission of the Faculty and on written application, stating reasons.

Applications for supplemental examinations must be in the hands of the Registrar at least three days before the date set for the beginning of the examination and they must be accompanied by a fee of \$5.00 for each subject.

## COURSES OF LECTURES.

## Aratomy.

Demonstrators:—

{
J. J. Ross, B. A. M. D.
A. E. Orr, M. D.
R. A. Westley, M. D.
H. M. Church, M. D.
A. T. Bazin, M. D.

Assistant Demonstrators: A. Mackenzie Forbes, M. D. C. K. P. Henry, M. D. W. E. Nelson, M. D. J. G. Browne, B. A., M. D.

Anatomy is taught in the most practical manner possible, and its relation to Medicine and Surgery fully considered. The lectures are illustrated by the fresh subject, moist and dry preparations, sections, models, plates and drawings on the blackboard. Frequent examinations are also held.

A course of practical demonstrations in Medical, Surgical and Topographical Anatomy is also given in the final year of the course.

The department of *Practical Anatomy* is under the direct control and personal supervision of the Professor of Anatomy, assisted by his staff of Demonstrators.

The methods of teaching are similar to those of the best European schools, and students are thoroughly grounded in this branch.

Every student must be examined at least three times on each part dissected, and no certificate is given unless the examinations are satisfactory.

Special Demonstrations on the brain, thorax, abdomen, bones, etc, are frequently given. Prizes are awarded at the end of the Session for the best examination on the fresh subject.

The Dissecting Room is open from 9 a.m. to 6 p.m. In consequence of the excellent Anatomy Act of the Province of Quebec, abundance of material can always be obtained.

#### Chemistry.

PROFESSOR; R. F. RUTTAN, B.A., M. D. LECTURER, -J. R. ROEBUCK, B.A. DEMONSTRATOR; -W. J. TELFER, M.D. LABORATORY ASSISTANT; -O. R. MABLE.

The course in Medical Chemistry is a graded one.

First Year:—During the autumn term of the first year a short course of lectures in Medical Physics is given. These lectures are fully illustrated by experiments. The students, taken in groups, are required to study by experiments in the laboratory the more important phenomena of heat, sound, light and electricity. Lectures and demonstrations on the principles of Chemistry are given three times per week during the winter and spring terms. Examinations are held at Christmas on Medical Physics, and in June on the theory of Chemistry.

Laboratory instruction in practical Chemistry is given during the winter term, six hours per week. This course includes the experimental study of the laws of chemical action, the properties of typical elements and compounds, and a short course in qualitative analysis. Special attention is directed to instructing the students in keeping an accurate record of his observations and conclusions. These notes are examined daily and criticised.

Second Year: — A course of lectures and demonstrations, three per week, is given on Organic Chemistry in the autumn term, and an examination is held at Christmas. During the winter and spring terms lectures and demonstrations are given on the application of chemistry to clinical diagnosis, sanitation and medical jurisprudence.

Laboratory work in clinical and applied Medical Chemistry is required during the spring term. An examination in applied Medical Chemistry, practical and theoretical, is held in June.

Students will find it greatly to their advantage to have a knowledge of elementary Chemistry before entering upon the study of Medicine. Graduates in arts of recognized universities, on presenting certificates of having taken courses in theoretical and practical Chemistry and Physics, and of having passed examinations in the same, may be exempted from the Chemistry of the first year.

## Physiology.

THE JOSEPH MORLEY DRAKE PROFESSOR:-T. WESLEY MILLS, M.A., M.D. ASSISTANT PROFESSOR:-W. S. MORROW, M. D.

Lecturers:—{ A. A. Robertson, B.A., M. D. A. H. Gordon, M.D. Demonstrator:—W. B. Howell, M. D.

The new Physiological Laboratory has been fitted up so as to permit of eighty students engaging in work at one time. The fittings and equipments of each bench are of the latest designs and are well adapted to their purpose. The apparatus was constructed by the best American and European makers and thoroughly tested before being accepted.

Each group of two students is supplied with all the apparatus necessary to carry out the work of verifying a large number of the leading principles of physiology and registering the results by the graphic method.

Provision is also made for a course in Physiological Chemistry, covering foodstuffs, digestion, the animal fluids, etc.

The experience of past sessions has fully justified expectations in regard to the Laboratory and the courses prescribed.

For the purposes of group and class demonstration, other and more complicated apparatus is available, and will be added to as necessity requires. Several pieces of such apparatus have been added this year.

Additional rooms are provided, seven in number, for a departmental library, professor's office and private laboratory, for preparation apartments, workshops, and for general physiological research.

The purpose of this course is to make students thoroughly acquainted, as far as time permits, with modern Physiology; its methods, its deductions and the basis on which the latter rest. Accordingly a full course of lectures is given, in which the physical, the chemical, and other aspects of the subject receive attention.

In addition to the use of diagrams, plates, models, etc., every department of the subject is illustrated experimentally. The laboratory work for students has been greatly increased and during the season of 1901-1902 apparatus to the value of over three thousand dollars was added to the students' laboratory.

# Laboratory work for Senior Students:-

- (1.) During a part of the Session there will be a course on Physiological Chemistry, in which the student will, under direction, investigate food stuffs, digestive action, blood, and the more important secretions and excretions, including urine. All the apparatus and material for this course will be provided.
- (2.) The remainder of the Session will be devoted to the performance of experiments (other than chemical) to illustrate important physiological principles.

## Histology.

PROFESSOR:—GLO. WILKINS, M. D.
LECTURER:—WALTER M. FISK, M. D.
DEMONSTRATORS:— H. B. CUSHING, B.A., M. D.
W. A. DORION, M. D.

The teaching of Histology and Microscopical Methods is spread over two years. During both years practical instruction will be given upon the preparation and mounting of specimens. Students will also be required to make drawings of the specimens prepared by them.

For the first year students, work will commence immediately after the Christmas holidays and continue until the end of the session. The course will consist of laboratory work and demonstrations, with occasional lectures upon elementary and systematic Histology up to and including the digestive system. At the end of the session a practical examination will be held on the work done.

During the second year a course of demonstrations and laboratory work together with lectures will be given on more advanced Histology and an examination held at Christmas.

### Biology.

PROFESSORS:— (D. P. PENHALLOW, D.Sc., PROFESSOR OF BOTANY, E. W. MACBRIDE, M.A., D.Sc., F.R.S., PROFESSOR OF ZOOLOGY,

The course in elementary Biology is designed to prepare for special study in medical subjects. Under the supervision of the professors of Botany and Zoology it will be given during the autumn term, the course in Zoology to consist of sixteen

lectures and sixteen laboratory periods to be given during the first eight weeks and the course in Botany of eight lectures and eight laboratory periods to be given during the last four weeks.

# A.—Animal Biology.\*

This course includes a study of the fundamental properties of protoplasm; the principles of the formation of tissues; the formation of organs and an outline of vertebrate structure and function. The types studied are Amæba Paramæcium, a Flagellate, Hydra, Lumbricus, Amphioxus and Scyllium (the English dog-fish). Two lectures and two laboratory periods each week.

# B.—Plant Biology.

The course in Plant Biology will deal chiefly with the general properties of cytoplasm; the structure and nature of the plant cell; movement; nutrition; respiration; fixation of carbon; division of labor and origin of organs; evolution of plant forms. These principles will be illustrated in their more simple forms by a Pleurococcus, Spirogyra and Oedogonium, Saccharomyces and Polytrichum.

Two lectures and two demonstrations each week, during the last four weeks of the Autumn term.

# C.—Embryology.

The course on this subject is given during the first four weeks in the Spring term. It includes a study of the segmentation of the egg and the formation of the germinal layers, as exemplified in an increasing degree of complexity in the series Echinus, Amphioxus, Rana, Scyllium, Phyllodactylus, Gallus, Lepus; the development of the vertebrate organs, as exemplified in the history of the Chick; and the development of the embryonic membranes (amnion and allantois) and their reiation to the uterine wall, as exemplified in the series Didelphys, Lepus, Canis, Ovis, Homo.

Three lectures and three short laboratory periods of an hour to an hour and a quarter each week. The marks obtained in this subject are added to those obtained in the Physiology of the first year.

<sup>\*</sup> A special fec of \$2.50 is charged against the caution money of each student, attending the course in Animal Biology, in order to cover the cost of laboratory notebook and instruments which are supplied to him and become his property. A student attending the course for a second time is not called on to pay this fec.

### Pathology and Bacteriology.

Professor: J. G. Adami, M. A., M. D., LL.D., F. R. S. Assistant Professor: A. G. Nicholls, M.A., M.D. Lecturer in Pathology: John McCrae, B.A., M.D. Lecturer in Bacteriology:—H. B. Yates, B.A., M.D. Lecturer in Neuropathology:—D. A. Shirres, M.D.

Lecturers in Pathology: - Oskar Klotz, M. B. Charlis A. Duyal, M.D.

DEMONSTRATORS: - E. J. SEMPLE, M.D. J. A. WILLIAMS, M.D. ASST. DEMONSTRATOR:-W. H. DONNELLY, M.D.

The teaching, both didactic and practical, in the subjects of Pathology and Bacteriology, is given by the Professor of Pathology and his staff.

For the use of this Department an extensive series of laboratories has been set aside and is now in active use on the top floor of the new wing of the Faculty, and inasmuch as the old Pathological Laboratory was established and equipped by the late J. H. R. Molson, these new laboratories retain the name of the J. H. R. Molson Laboratories.

They consist of a large and admirably lighted class room for general classes capable of accommodating with ease 70 students at a time, so arranged that each student in the bacteriological and pathological courses does the microscopical work at one table and immediately behind him is his locker and bench for the preparation of material, preparation of culture media, etc. In this room at one end there is also a small demonstration theatre or quarter circle capable of accommodating the whole class at work in the laboratory at one time and used for demonstration purposes, and at the other on la service department from which are given out materials. Eurther arrangements are installed for lantern demonstrations for the whole class. The large laboratory is so arranged that the students can perform their practical work with the least amount of moving about the room, the students working in pairs and having all the necessary apparatus, reagents, etc., immediately by them.

The following courses constitute the teaching in these subjects:—

- I. An introductory course in Pathology for students completing their second year. Lectures twice weekly throughout the spring term, with museum demonstrations two hours weekly. This course is intended to familiarize students with the main processes and conditions encountered in clinical work, with the terms most often employed and their significance. The rich collection of examples of the more common states of disease contained in the Museum forms the basis of this course.
- 2. A course of General Pathology for the students of the third year; optional for those of the fourth year. Lectures are delivered twice weekly throughout the winter and spring terms.
- 3. A course of Demonstrations in the Performance of Autopsies to students of the third year. The demonstrations are held weekly from October until Christmas.
- 4. Demonstrations upon the Autopsies of the week to students of the two final years. These are given during the Session by Drs. Adami and McCrae at the Royal Victoria Hospital, and Drs. MacTaggart and Duval at the Montreal General Hospital.
- 5. A course of Elementary Bacteriolog, for students of the first year eight lectures with demonstrations being given during the spring term.
- 6. A course of lectures upon Bacteriology in Relation to Disease, for students of the third year, given three times weekly during the autumn term.

# Practical Courses.

- 7. The performance of Autopsies. Each student is required to take an active part in at least six autopsies. These are conducted at the General and the Royal Victoria Hospitals. In addition to the actual performance of the *sectio cadaveris*, the students are expected to attend practical instruction given with each autopsy in the method of preparation and microscopical examination of removed tissues, so as to become proficient in the methods of preparation, staining and mounting.
- 8. A practical course in the Bacteriology of Infectious Diseases, for students of the third year. This course is held twice weekly during the autumn term.

- 9. A practical course in Morbid Histology to students of the third year. This is held twice weekly during the winter term. Students are instructed in the staining and mounting of specimens, and as a rule six sections are distributed at each meeting of the class so that each student obtains a large representative series of morbid tissues, altogether about 120 in number.
- 10. A course of demonstrations upon Morbid Anatomy, museum specimens, once weekly during the autumn and winter terms to students of the fourth year.

In addition to the above, the staff of the department gives instruction to the more advanced students who desire to take any special work in the laboratories; this more especially during the vacations.

For this purpose a special set of rooms has been set apart for Post-Graduate and Advanced Instruction. Accommodation has been provided for classes of twelve to fifteen. In connection with these laboratories for advanced work there is a departmental reference library, rooms for photography, etc.

Optional courses are conducted by the demonstrators of Pathology and the demonstrator of Neuro-pathology during the Session. Classes in Clinical Pathology and Microscopy are given at the General and Royal Victoria Hospitals under the direction of the professors and lecturers in Clinical Medicine.

In connection with this Department, a Research and Teaching Fellowship has been established by certain Governors of the University.

# Pharmacology and Therapeutics.

PROFESSOR: - A. D. BLACKADER, B.A., M.D.

LECTURERS. - R. A. KEPRY, M.D.

DEMONSTRATOR: - J. L. D. MASDN, M.D.

The lectures on this subject are graded in the following manner: — For students of the second year, there is (1) a three months' course in Practical Materia Medica and Pharmacy, with demonstrations and exercises in the laboratory. Prescription writing and the various modes of administering drugs are explained and illustrated: (2) a six months' course on the physiological action of drugs, with practical demon-

stration of the action of the more important ones. In the third year attention is directed to the Therapeutic Application of all the more important drugs and remedial measures, including Electricity, Hydrotherapy and Climatotherapy.

The Eddie Morrice Laboratory, comprising pharmacological and chemical research rooms, has, through the liberality of Mr. Morrice, been fully equipped with all necessary apparatus for carrying on extended research work.

## Medical Jurisprudence.

Professor:—Geo. Wilkins, M.D.
Lecturer—Medico-Legal Pathology:—D. D. MacTaggart, M.D.

This course is treated of in its medical as well as medicolegal aspects. Special attention is devoted to the subject of blood stains, the chemical, microscopical and spectroscopic tests for which are fully described and shown to the class. The various spectra of blood in its different conditions are shown by the micro-spectroscope, so well adapted for showing the reactions with exceedingly minute quantities of suspected material. Recent researches in the diagnosis of human from animal blood are alluded to. In addition to the other subjects usually included in a course of this kind, Toxicology is taken up. The modes of action of poisons, general evidence of poisoning and classification of poisons are first treated of, after which the more common poisons are described, with reference to symptoms, post-mortem appearance and chemical tests. The post-mortem appearances are illustrated by plates, and the tests are shown to the class.

# Hygiene.

STRATHCONA PROFESSOR:—T. A. STARKEY, M.B., D.P.H., M.R.C.S., etc.

Demonstrator:—F. B. Jones, M.D., D.P.H.

Assistant Demonstrators:— { F. C. Douglas, M.D., D.P.H.

J. A. Lundie, M.D., D.P.H.

Owing to the endowment of the Department of Hygiene by the Right Honorable Lord Strathcona, a teaching Laboratory has been established in connection with the chair of Hygiene. The compulsory course in Hygiene consists of two lectures per week, supplemented by demonstrations dealing with the practical application of hygienic principles as well as the

Elementary Chemistry and Bacteriology of water, air, soil, foods and beverages. In addition, excursions are made periodically to inspect some point of hygienic interest. The course also includes the hygiene of air, soil, water and climate: health resorts, personal hygiene, bathing, exercise, clothing, hygiene of special life periods; food and diet; food supply; food diseases and adulterations; hygiene of dwellings; heating, lighting and ventilation, sanitary fittings; municipal sanitation; water supply: sewage; drainage; refuse disposal; burial of the dead; hygiene of occupation, offensive trades; hygiene of hospitals, prisons, etc.; preventive medicine; methods of dealing with infectious diseases and epidemics; communicable diseases of animals; organization of health boards: sanitary law and administration in relation to the medical practitioner: vital statistics in relation to the healthfulness of communities.

An optional practical course more advanced than, the one above referred to, will be open to students wishing to go into higher detail.

Special courses of instruction are given to graduates wishing to qualify themselves in sanitary work, or to obtain the diploma in Public Health. (See "Diploma Course in Public Health, page 243.)

The Laboratory has been equipped with the apparatus needed in giving practical illustrations in Hygiene, either as demonstrations to large classes of students, or as practical work for smaller groups.

The museum contains working models and apparatus illustrative of the application of hygienic principles. (Vide Hygiene Museum.)

· The arrangement is as follows:-

The Hygiene Department occupies the entire north end of the building on the mezzanine floor, having the floor space corresponding with that of the Department of Histology. The main laboratory is 60 x 50 feet, and it is well equipped with apparatus for demonstrations and practical work in Hygiene. Adjoining it is a balance room and private laboratory, 13 x 15 feet. Opening off the main laboratory is the museum, about 45 x 30 feet, which is well stored with full sized specimens and working models illustrative of all branches of Public Health.

#### Medicine.

PROFESSOR:—JAMES STEWART, M.D.

F. G. FINLEY, M.B., M.D.

H. A. LAFLEUR, B.A., M.D.

C. F. MARTIN, B.A., M.D.

While the lectures on this subject are mainly devoted to Special Pathology and Therapeutics, no opportunity is lost of illustrating and explaining the general laws of disease. With the exception of certain affections seldom or never observed in this country all the important internal diseases of the body, except those peculiar to women and children, are discussed, and their Pathological Anatomy illustrated by the large collection of morbid preparations in the University Museum, and by fresh specimens contributed by the Professor of Pathology.

The College possesses an extensive series of plates and models illustrative of the histological and anatomical appearances of disease, and the wards of the General and Royal Victoria Hospitals afford the lecturers ample opportunities to refer to living examples of very many of the maladies described, and to demonstrate the results of treatment.

### Clinical Medicine.

PROFESSOR:—JAMES STEWART, M.D.

ASSOCIATE PROFESSORS:—

{ F. G. FINLEY, M.B., M.D.

H. A. LAFLEUR, B.A., M.D.

ASSISTANT PROFESSOR:—C. F. MARTIN, B.A., M.D.

G. GORDON CAMPBELL, B.Sc., M.D. W. F. HAMILTON, M.D.
LECTURERS: S. RIDLEY MACKENZIE, M.D.
A. A. BRUERE, M.D.

Demonstrators:—

{ C. A. Peters, M.D. F. M. Fry, M.D. H. B. Cushing, B.A., M.D. A. H. Gordon, M.D.

Assistant Demonstrators:—  $\left\{ \begin{array}{l} C.~K.~Russell,~M.D.\\ A.~G.~McAuley,~M.D. \end{array} \right.$ 

The instruction in Clinical Medicine is conducted in the theatres, wards, out-patient rooms and laboratories of the Royal Victoria and Montreal General Hospitals.

The courses include:—

- I. The reporting of cases by every member of the Graduating Class, a certain number of cases being assigned to each student.
- II. Bedside instruction for members of the Graduating Class.
  - III. Clinics weekly in each hospital.
- IV. Tutorial instruction for the Junior Classes, in the wards and out-patient rooms of both hospitals.
  - V. Instruction in Clinical Chemistry and Bacteriology.

## Surgery.

PROFESSOR:—THOMAS G. RODDICK, M.D., LL D. ASSISTANT PROFESSOR:—J. M. ELDER, B.A., M.D. LECTURER:—A. E. GARROW, M.D.

This course consists of the Principles and Practice of Surgery and Surgical Pathology, illustrated by a large collection of preparations from the Museum, as well as by specimens obtained from cases under observation at the hospitals. The lectures to the third year deal chiefly with the Principles of Surgery, while the greater part of the fourth year course is devoted to the Practice of Surgery, attention being constantly drawn to cases which have been observed by the class during the session. The various surgical appliances are exhibited, and their uses and application explained. Surgical Anatomy and Operative Surgery form special departments of this course.

## Clinical Surgery.

Professor:—James Bell, M.D.
Associate Professor: ..George E. Armstrong, M.D.

Assistant Demonstrators:   

$$\begin{cases}
E. M. Von Eberts, M.D. \\
W. H. P. Hill, M.D. \\
A. D. Irving, M.D. \\
A. R. Pennoyer, M.D. \\
C. K. P. Henry, M.D.$$

The teaching in Clinical Surgery is conducted at the Mont-real General and Royal Victoria Hospitals.

I. In the amphitheatre of each of these hospitals, demonstrations are given and operations are performed before the

Senior and Junior Classes on alternate days.

II. Small ward classes of about ten men in each are taken through the wards by the surgeon in attendance, and instruction given at the bedside concerning the nature and management of surgical cases, in each hospital, at least once per week. Similar classes are also taken into the wards daily by the Surgical Assistants for instruction in diagnosis and reporting.

III. Beds are assigned to students in rotation, and each student is required to carefully study and report cases and to assist in the surgical dressing of the same. Certificates of case reporting are given, and are essential to graduation.

IV. In the Out-patient department students have an exceptionally good opportunity to study a great variety of injuries, to witness operations in minor surgery, to come into personal contact with patients and to take part in the application of a variety of surgical dressings and appliances.

### Obstetrics and Diseases of Infants.

PROFESSOR:—J. CHALMERS CAMERON, M.D. LECTURER:—D. J. EVANS, M.D.

Demonstrators:—
} H. M. Little, M.D.

James Barclay, M.D.
H. R. D. Gray, B.A., M.D.

Assistant Demónstrators:—  $\{J.\ W.\ Duncan,\ M.D.\ J.\ G.\ Browne,\ M.D.$ 

This course will embrace: (1) Lectures on the principles and practice of the obstetric art, illustrated by diagrams, fresh and preserved specimens, the artificial pelvis, complete sets of models illustrating the deformities of the pelvis, wax preparations, bronze mechanical pelvis, etc. (2) Bedside instruction in the Montreal Maternity, including external palpation, pelvimetry, the management and after-treatment of cases. (3) A complete course on obstetric operations with the Tarnier-Budin phantom. (4) The diseases of infancy. (5) A course of individual clinical instruction at the Montreal Maternity.

The course is carefully graded and instruction is given separately to students of the third and fourth years.

Particular attention is given to clinical instruction, and a clinical examination similar to that held in Medicine and Surgery, forms an important part of the Final examination.

A short course of lectures on diseases of Infancy is given supplemented by clinical demonstration and ward work. The demonstrators give special demonstrations from time to time and take the students in groups for the purpose of examination and review.

## Gynæcology.

PROFESSOR:—WM. GARDNER, M.D.

F. A. L. LOCKHART, M.B.

LLCTURERS:— W. W. CHIPMAN, B.A., M.D.

J. D. CAMERON, B.A., M.D.

DEMONSTRATORS:— DAVID PATRICK, M.D.

J. R. GOODALL, M.D.

The didactic course is graded, and consists of from forty to forty-five lectures given at intervals alternating with the lectures on Obstetrics and extending throughout the session. The anatomy and physiology of the organs and parts concerned are first discussed. Then the various methods of examination are fully described, the necessary instruments exhibited, and their uses explained.

The diseases peculiar to women are considered as fully as time permits, somewhat in the following order:—Disorders of menstruation: lencorrhæa; diseases of the external genital organs; inflammations, lacerations and displacements of the uterus; pelvic cellulitis and peritonitis and inflammation of the ovaries and fallopian tubes; benign and malignant growths of the uterus; tumours of the ovary; diseases of the bladder and urethra. The lectures are illustrated as fully as possible by drawings, morbid specimens and lantern slides.

Clinical teaching, including out-patient and bed-side instruction is given at both the Royal Victoria and Montreal General Hospitals by Professor Gardner and Doctors Lockhart, Chipman, Cameron, Patrick and Goodall. A large amount of clinical material is thus available for practical instruction in this department of medicine. Numerous operations are done before the class and made the subject of remarks. In addition

to the ward-patients, each hospital conducts a large out-patient gynæcological clinic, to which advanced students are admitted in rotation, and instructed in digital and bi-manual examination and in the use of instruments for diagnosis.

Particular attention is thus given to clinical instruction, and a clinical examination in Gynæcology similar to that held in Medicine and Surgery, now forms part of the Final examination.

## Ophthalmology.

PROFESSOR:—J. W. STIRLING, M.B.

LECTURER:—W. G. M. BYERS, M.D.

DEMONSTRATOR:—G. H. MATHEWSON, B.A., M.D.

ASST. DEMONSTRATORS:— 

S. H. McKee, B.A., M.D.

This will include a course of from twenty-five to thirty didactic lectures on Ophthalmology and Otology, delivered at the college buildings. In these will be discussed especially the methodical, clinical examination of the organs of sight and hearing, the classification and pathology of the diseases affecting them, and the general principles underlying the diagnosis and treatment of the affections of the eye and ear.

Systematic clinical instruction will be given at the biweekly clinics in the out-patient departments of the General and Royal Victoria Hospitals where students have unexcelled opportunities for thoroughly grounding themselves in the work of these branches. The operative work of eye and ear surgery is fully open to undergraduates on days set apart for the purpose, and special courses for instruction in refractive work and the use of the ophthalmoscope can also be arranged for at times convenient to the teachers and students.

# Rhinology, Laryngology and Otology.

Professor:—H. S. Birkett, M.D.

Demonstrator of Rhinology & Laryngology:—H. D. Hamilton,
M.A., M.D.

Asst. Demonstrator of Rhinology, Laryngology and Otology:—W. H. Jamieson, M.D.

This course will consist of clinical instruction, carried on in the Out-door Department of both the General and Royal Victoria Hospitals, on the diagnosis and treatment of diseases of the nose, throat and ear, including practical lessons on the use of the laryngoscope, rhinoscope and methods of examining the ear. This instruction will be carried out with small classes, so that individual attention may be insured.

#### Mental Diseases.

Professor: T. J. W. Bergess, M.D.

This course will comprise a series of lectures at the University on Insanity in its various forms, from a medical as well as from a medico-legal standpoint. The various types of mental diseases will be illustrated by cases in the Verdun Hospital, where clinical instruction will be given to visiting groups of Senior students at intervals throughout the session.

Diseases of Infants and Children.

Professors:—{ J. C. Cameron, M. D. A. D. Blackader, B.A., M.D. Lecturers:— (G. G. Campbell, M.D. D. J. Evans, M.D. Demonstrator:—W. M. Fisk, M.D.

Although this subject does not constitute a special chain in the University, systematic instruction is given (a) in connection with the chair of Obstetrics and Diseases of Infants by Prof. Cameron; (b) by a course of lectures, clinical and didactic, by Prof. Blackader; and (c) through the Children's Clinic at the Montreal General Hospital, at the Infants' Home, and at the Montreal Foundling and Baby Hospital.

### Clinical Microscopy.

Professor: —F. J. Shepherd, M.D., LL.D. (Edin.) Lecturer: —G. G. Campbell, M.D.

This course, which is given during the Spring Term of the Third Year, is essentially a practical one and is in charge of Professor C. F. Martin, assisted by Drs. W. F. Hamilton, G. G. Campbell, Ridley MacKenzie, A. A. Bruère, C. F. Wylde, and other teachers connected with the department of clinical medicine.

It is a laboratory course forming part of the Third Year instruction in medicine and is held in the Pathological Laboratory of the Medical Building. The classes are held twice weekly, each demonstration lasting two hours.

Students are given instruction in the microscopic appearances of the normal and abnormal sediments in the urine, in the preparation and staining of films from pus and sputum for pathogenic bacteria, in the methods of examination of the blood including the use of the hæmoglobinometer, hæmocytometer, microspectroscope, the determination of the specific gravity, the examination of fresh films, the preparation of stained blood films and the method of making differential leucocyte comets. The instruction also comprises the microscopic examination of stomach contents and fæces, for the recognition of abnormal cellular elements, fat blood bacteria and animal parasites; the examination of exudates and other pathological fluids obtained by puncture, and also the examination of hairs for the parasites of ringworm and favus.

In addition to this the student is given an opportunity of examining the various bacteria of importance in Clinical Medicine and Surgery.

Various specimens of special interest, which are found in the hospitals from time to time, are examined as occasion arises at the demonstrations.

### POST-GRADUATE AND ADVANCED COURSES.

The Faculty of Medicine in 1896 established post-graduate and special courses in connection with the Montreal General and Royal Victoria Hospitals and the various laboratories in the University buildings.

Commodious laboratories for advanced work have been equipped in connection with the Pathological and Clinical departments of both the Royal Victoria and Montreal General Hospitals, and in connection with the general laboratories for Pathology, Pharmacology, Physiology and Chemistry, recently altered and extended, in the new buildings of the Faculty.

Recent graduates of recognized universities desiring to qualify for examinations by advanced laboratory courses, or who wish to engage in special research, may enter at any time by giving notice, stating the courses desired and the time at their disposal.

All the regular clinics and demonstrations of both hospitals will be open to such students on the same conditions as to undergraduates in medicine of this University.

# The Post-Graduate Course of 1906.

The eleventh regular course of instruction for post-graduate students in the Faculty of Medicine will be given during the month of June, 1906, commencing on Monday. June 4th, and ending on Friday, June 29th.

A circular containing full information regarding courses, fees, etc., has been prepared and can be obtained on application to Dr. J. W. Scane, Registrar Faculty of Medicine.

#### DIPLOMA COURSE IN PUBLIC HEALTH.

The Faculty in the session 1899-1900 instituted a post-graduate course in Public Health and Sanitary Science. This course will be given each year and the diplomas will be awarded at the annual convocation.

Candidates undertaking this course must have possessed a degree in Medicine, or other qualification of practice, for at least twelve months before he is competent to receive the diploma. The courses prescribed are as follows:—

- 1. A course of lectures in Public Health (to be omitted in the case of candidates who have attended such a course before graduation).
- 2. A three months' course in Bacteriology, special attention being directed to the pathogenic organisms and parasites—such course to be omitted on presentation of proof that it has previously been taken.
- 3. A six months' course of practical study of out-door sanitary work under a medical officer of health (to be omitted in the case of medical health officers holding appointments prior to the establishment of this diploma course).
- 4. Three months' attendance and clinical instruction at a hospital for infectious diseases (unless such course has already been taken prior to graduation).
- 5. Three months' instruction in sanitary Chemistry and Physics, with practical work in a chemical laboratory.

The examination for the Diploma shall cover the following subjects:—examination of clinical cases at an infectious hospital; the drawing up of outlines for annual and other reports of officers of health; a report upon the sanitary condition of some actual locality; the chemical analysis of liquids and gaseand of specimens of food; demonstration of the consideration

and use of meteorological, hygienic and sanitary apparatus; microscopical examination of specimens submitted; description of specimens of human and other diseased tissues; practical examination in the employment of the usual bacteriological methods; the inspection of carcasses of animals to be used for food.

The above examination shall be written, oral and practical,

and shall extend over a period of four days.

The following is a list of subjects included in the curriculum of study:—

(a) Sanitary Chemistry:—Examination of air, gases, water, the action of water on metals; milk, food and beverages; detection of poisons in articles of dress and of decoration; the chemistry of sewage.

(b) Sanitary Physics: — Principles of statics, pneumatics, hydraulics, light, light and photometry, heat and thermometry, the principles of hygrometry, (only in their application to

hygiene).

(c) Sanitary Legislation: - Statutes and by-laws relating to

public health; the powers of public sanitary authorities.

(d) Bacteriology and Parasitology:—Modes of propagation of disease and transmission of disease between man and man, and man and animals; bacteriological analysis in relation to public health matters; natural history of microbes and animal parasites.

(e) Vital Statistics:—Calculation and tabulation of returns

of births, marriages, deaths and diseases.

(f) Meteorology and Climatology:—Including the geographical and topographical distribution of disease.

(g) Preventive Medicine and Practical Sanitation.

The fee for the Diploma, including laboratory fee, shall be \$50.00.

#### MUSEUMS.

The Faculty has during recent years devoted special attention to the development of its museums in the several departments in which objective teaching is of special value in the education of the student.

There are now four museums in the Medical Building: (1) the Museum of Pathology, (2) the Anatomical Museum, (3) the Museum of Public Health and Preventive Medicine, (4) the Museum of Pharmacy.

Each collection is arranged and selected with the primary object of making it a teaching museum. The several collections are open to students and the public between 9 a.m. and 5 p.m.

(A full description of the first three museums above-named is given on pages 271 to 275.)

#### CLINICAL INSTRUCTION.

Few Medical Schools are able to offer such excellent facilities for clinical instruction as the Medical Faculty of MeGill University. This is so, because of the extensive field afforded for such instruction in the Montreal General and the Royal Victoria Hospitals, both of which have at least a continental reputation.

Clinics are held regularly in all subjects in both hospitals, and tutorial instruction is given in the wards, out-patient rooms and laboratories. Besides this, every facility is afforded in the Montreal Maternity Hospital for acquiring a practical knowledge of the various obstetric manipulations and the management and after treatment of cases. Full particulars regarding the character of this part of the work, with detailed descriptions of the Hospitals, are given in the Medical Calendar, which will be sent on application.

#### McGILL MEDICAL SOCIETY.

This Society, composed of registered students of the Faculty, meets every alternate Saturday during the Autumn and Winter Terms, for the reading of papers, case reports and discussions on medical subjects. A prize competition has been established in Senior and Junior subjects, the Senior being open to all to write upon, while only the 1st, 2nd and 3rd year students are allowed to compete in the Junior subjects. The papers are examined by a board elected from the Professoriate, and a first and second prize in each division of subjects is awarded to the successful candidates.

Names of competitors and titles of papers must be sent to the Chairman of the Programme Committee before September 1st, and all papers are subject to the call of the Committee on October 1st. All papers must be handed in for examination on or before January 10th.

This Society has control of the students' reading room, in which the leading English and American Medical Journals are on file, as well as the leading daily and weekly newspapers

of the Dominion.

The annual meeting is held during the first week of the Spring Term, when the following officers are elected: Hon. President (elected from the Faculty), President, Vice-President, Secretary, Assistant Secretary, Treasurer, Reporter, Pathologist, and three Councilmen (of whom two shall be elected from the Faculty).

# INFORMATION FOR STUDENTS IN DENTISTRY.

The course in Dentistry extends over four sessions of nine months each and leads to the degrees of M.D.S. and D.D.S. During the first two years Dental students are required to take the same subjects and pass the same examinations as students in Medicine. The lectures will be given and the laboratory and other practical work done at the Medical College. The work during the last two years has special reference to Dentistry proper and will be carried on at the Dental College. A few courses of lectures will, however, be given at the Medical College.

#### MATRICULATION.

Students in Dentistry must pass the matriculation examination required of students in Medicine, for particulars of which see pages 18 and 20 to 25. Those who intend to practise in the Province of Quebec must pass the matriculation examination of the Dental Association, if they do not hold a degree in Arts or Medicine from a recognized British or Canadian University. A certificate of having passed this examination will be accepted as a full equivalent for the matriculation examination of this University.

The fee for the Dental Association examination is \$20.00 and is payable to the Secretary, Dr. Eudore Dubeau, 306 St. Denis Street, Montreal, from whom all further information can be obtained.

#### FEES.

The fees are the same as for students in Medicine. (See page 53.)

## ADMISSION TO PRACTICE.

In accordance with the provisions of the Dental Act, candidates intending to practise in the Province of Quebec must sign indentures, before a Notary Public, with a licentiate of

Dental Surgery in active practice in the Province, four years before being admitted to the profession. He should, therefore, register with the Dental Board at the beginning of his College course.

The requirements for admission to study and practice in the other provinces of the Dominion (British Columbia excepted) will be learned by corresponding with the secretary of the Dominion Dental Association.

# REQUIREMENTS FOR THE DEGREE.

The degree of Master of Dental Surgery (M.D.S.) will be conferred only on candidates who (I) have attained the full age of twenty-one years, (2) are of good moral character. (3) have attended for four regular sessions, (4) have paid all the required fees, and (5) have passed the prescribed examinations.

#### COURSE OF STUDY.

First Year: — Anatomy, Practical Anatomy, Physiology, Practical Physiology, Physics, Inorganic Chemistry, Histology, Biology and Embryology, Bacteriology.

Second Year:—Anatomy, Practical Anatomy, Physiology, Practical Physiology, Organic Chemistry, Applied Medical Chemistry, Histology, Pharmacy and Pharmacology, Pathology.

Third and Fourth Years:—Operative and Mechanical Dentistry, Crown and Bridge-Work, Practical work in Infirmary, Dental Pathology, Materia Medica, Orthodontia, Anæsthetics, Dental Surgery.

## UNIVERSITY BUILDINGS.

#### THE CENTRE BUILDING.

This building, the first and oldest building of McGill College, contains the lecture-rooms of the Faculty of Arts and the botanical laboratories in the centre. The East Wing contains the newly equipped zeological laboratories, the offices of the Administration, and the lecture rooms of the Faculty of Law. The West wing (the old Molson Convocation and Examination Hall) has been converted into lecture-rooms for the first year English and Mathematical classes in the Faculty of Applied Science, the accommodation in the Engineering Building having proved inadequate for the large numbers of students in that Faculty.

The hotanical laboratories are described in detail on page 256, the zoological Laboratories on page 271.

#### THE MacDONALD ENGINEERING BUILDING.

The Engineering Building, erected, equipped and endowed by Sir William C. Macdonald, represents, in architectural effect, a severe treatment of the Italian renaissance. Besides numerous lecture-rooms, students' rooms, a departmental library, and a large technical museum, which holds the Reuleaux collection of Kinematic models—believed to be the most complete in America—the building contains large and thoroughly equipped electrical and magnetic laboratories; dynamo rooms; lighting station; accumulator room; laboratories of Mathematics, Dynamics, Mechanics, Geodesy, Modelling, Testing, and Thermodynamics; workshops (in the annex erected under the bequest of the late Thomas Workman) for carpentry, wood-turning, and pattern-making; Machine shops; Smithy; Foundry, etc.

The whole of one floor is given up to drawing-rooms, and the Museum of the building contains a large collection of casts illustrative of the historical development of the various styles of architecture and of casts of architectural and figure sculpture.

A detailed description of the laboratories and workshops and their equipment will be found on pages 250 ct seqq.

#### MacDONALD CHEMISTRY AND MINING BUILDING.

Admirable facilities are afforded in the Macdonald Chemistry and Mining Building for study and research in the departments of Chemistry, Metallurgy, Mining, Mineralogy and Geology. The building was erected, equipped and endowed by Sir William C. M. adouble It is spacious, admirably lighted, heated by hot water, and vertilated be electric fans. In addition to the large Lecture Theatre, which is about 250 students, there are four lecture rooms for smaller classes, and a number of offices.

There are three large general chemical laboratories, large laboratories for Ore-dressing and Metallurgy and a number of smaller rooms for special purposes, including research work. Among the special laboratories may be mentioned those for Organic Chemistry, Physical Chemistry, Electrolytic Analysis, Gas Analysis, Iron and Steel Analysis, Fire Assaying, Water Analysis, Determinative Mineralogy, Petrography, Photography, etc. The reference library contains about 1,300 volumes.

A detailed description of the laboratories and their equipment is

given on pp. 257 and 258.

## THE MacDONALD PHYSICS BUILDING.

The Macdonald Physics Building, another of Sir William C. Macdonald's rifts to the University, contains five storeys, each of 8,000 square feet area. Besides a lecture theatre and its apparatus rooms, the building includes an elementary laboratory nearly 60 feet square; large special laboratories arranged for higher work by advanced students in heat and electricity; a range of rooms for optical work and photography; separate rooms for private thesis work by students; and two large laboratories arranged for research, provided with solid piers and the usual standard instruments. There are also a lecture room, with apparatus room attached, for Mathematical Physics, a special physical library, and convenient workshops. The equipment is on a corresponding scale, and comprises: (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by the students in practical work; (3) the most recent types of all important instruments for exact measurement, to be used in connection with special work and research.

A detailed description of the laboratories and their equipment is

given on pp. 266 and 267. .

#### THE MEDICAL BUILDING.

The present main building of the Faculty of Medicine was erected in 1873. In 1885, and again in 1893, large additions and alterations were made. These again, however, proved inadequate, and a thorough reconstruction and enlargement of the buildings has lately been completed.

The alterations and extensions may be described as consisting of three wings. First, a laboratory wing. This wing occupies the northeast corner of the block of buildings and replaces what was formerly the Pathology wing. A second wing connects this with the front building on the east, and the third wing connects the Molson block

with the original building on the west side.

The central wings extend east and west about 70 feet and form the central feature of what is now a symmetrical block of stone buildings. It will be seen that the stone and brick extensions, erected by the Faculty in 1885, have been entirely removed and replaced by these sub-tantial structures. The alterations and extensions now completed form the larger portion of a scheme of complete reconstruction and extension which will ultimately lead to the replacing of the original stone building now remaining by a facade which will project into the University grounds to the south of the buildings and so convert the whole into a single symmetrical structure.

The new building is of four stories except in the front block, where the three original stories remain. The total length of the buildings, is 280 feet and the maximum width 145 feet. Its cubic capacity is about 1,750,000 cubic feet, making it the largest of the buildings on the University campus.

The ground floor contains the lavatories, locker rooms, furnace rooms, vat rooms, rooms for stores and janitor's dwelling. In the laboratory wing there is a large recreation room for students, a students' laboratory for pharmacology and therapeutics, a research laboratory.

atory and a private room connected with this department.

On the first floor, are the pathological museum, the library and students' reading-room, with accommodation for 200 readers. The reading room is connected with a fire-proof stack room which contains the valuable library of the Faculty. This stack room has a capacity of 40,000 volumes, the library at present containing about 24,000. The pathological museum on the opposite side of the hall connects with rooms beneath the seats of lecture room No. IV, which are used for special collections and for curators' rooms. Four small rooms adjoining are for the use of professors as private rooms. On the opposite side of the hallway in the central section of the building are the protessors' common room, the Faculty room and the offices of the Registrar.

The most striking feature in the construction of the building is the large central hall or rotunda extending from the ground floor through the three storeys to the roof, lighted by a skylight occupying the whole length of the middle section. This hall is 70 feet long by 45 feet wide, with galleries at each floor, connecting the various laboratories and

lecture rooms with broad staircases at each end.

The northern section contains the chemical laboratory, 80 feet long by 45 feet wide, and 20 feet high, surrounded with draft cupboards, and having benches for 150 to 180 student. Connected with this room is a commodious research laboratory for advanced work in medical chemistry, and a small Professor's laboratory. On the opposite side of the hall is a large lecture room with a seating capacity of from 400 to 450, the museum preparation room, a small cloak room and prepara-

tion rooms connected with the lecture room.

The floor above in the two southern sections is devoted entirely to Anatomy. The dissecting room occupying the top of the front building remains unchanged, and is connected on the west with a series of demonstrators' rooms, a private dissecting room and two rooms for the professor of this department. These rooms surround lecture room No. II, especially arranged for lectures in Anatomy. On the apposite side of the hall, occupying the same area as the lecture room and adjoining rooms is the anatomical museum. Intervening between this and the dissecting room on the east side are a small demonstration room, locker rooms and service rooms connected with the department of Anatomy.

In the northern section are the museum of Hygiene and the Hygiene laboratory. These rooms extend the whole distance across the east

and west wings.

On the top floor are the departments of Physiology, Pathology, Bacteriology and Histology. The department of Pethology and Biesteriology has a laboratory of the same dimensions in the chemical laboratory, 80 x 45 feet, especially well lighted with three large raif

lights in addition to the lights on both sides. Besides the tables, lockers, etc., provided for students in this department, there is a small demonstrating theatre and a series of small rooms for advanced work and for special purposes. These include a dark room, an incubator room, reference library and three private laboratories. On the opposite side of the hall, occupying a similar floor area, are the laboratories for Physiology, consisting of a students' laboratory which has been specially equipped this year with sets of apparatus for the practical study of the principles of physiology by the graphic method. Connecting the students' laboratory with lecture room No. I., to be used for Physiology chiefly, are a series of four rooms for advanced work and special research, service rooms and store rooms.

Occupying the entire northern end of this floor is the histological laboratory with an adjoining room for private work. This laboratory is 105 feet long and affords space for the use of 150 microscopes at

one time.

The laboratory wing is ventilated by a system of artificial ventilation, a powerful fan supplying each laboratory with warm fresh air, while extraction flues, to which extraction fans are attached, draw off the

foul air from each room in this wing.

It will thus be seen that the new buildings of the Medical Faculty contain four lecture rooms, three of which have a seating capacity of 250, the fourth from 400 to 450. There are five museums, namely, for Pathology, Anatomy. Obstetrics and Gynæcology, Pharmacy and Hygiene. Other collections are being made and space has been

arranged for their accommodation.

Extensive locker rooms have been arranged so that at a nominal cost each student may have a locker for himself. Lockers are also provided in connection with each of the large laboratories in which the students are required to keep their own material, instruments, etc.—as for instance, in connection with the dissecting room and the laboratories for Pathology and Bacteriology. In addition to the large reading room of the library and the recreation room on the ground floor of the laboratory wing, a small reading room is provided for the use of students and controlled by the Students' Medical Society, in which are kept the daily papers, periodicals, etc.

For a description of the Medical laboratories see also pages 259

ci segg.

#### THE ROYAL VICTORIA COLLEGE FOR WOMEN.

This residential college for the women students of McGill University, erected and endowed by Lord Strathcona and Mount Royal, is situated on Sherbrooke Street, in close proximity to the University buildings and laboratories. The professors and lecturers of the University are thereby enabled to give their services in the conduct of the College classes.

Full particulars regarding the College, terms of residence, etc., are given on pages 277 to 280.

#### THE UNIVERSITY LIBRARY.

#### Librarian: - Charles H. Gould, B.A.

The general library is housed in the fine Romanesque building erected in 1893 by the late Mr. Peter Redpath.

Dignified and convenient as originally designed, it has recently been improved and greatly enlarged by the liberality of Mrs. Peter Redpath. It now possesses ample accommodation for three inindred and fifty readers, of whom fully one hundred can be provided for in the seminary rooms and special studies.

The main architectural feature of the interior is the general reading room, 110 feet long, 44 feet wide, 34 feet high. It will seat one hundred and lifty readers and has open shelves for about 4,000

volumes.

The look stack, four and five storeys high, of approved type, excellently lighted and ventilated, with four reading bays on each storey, has a working capacity of 250,000 volumes, besides special provision for the storage of maps and of newspapers.

A description of the collections and other particulars are given

on page 67.

### THE PETER REDPATH MUSEUM.

Senior Curator:-Prof. B. J. Harrington, M.A., LL.D.

This building was erected in 1882 by the liberal benefactor whose name it bears. It occupies a commanding position at the upper end of the campus, and besides its central hall and other rooms devoted to the collections, contains a large lecture-theatre, class-rooms, and work-rooms.

The general arrangement of the collections is as follows:

1. The Botanical Room on the ground floor contains the Herbarium, consisting of 50,000 specimens of Canadian and exotic plants and col-

lections illustrating structural and economic botany.

2. On the first floor is a room over the entrance hall, in which are cases containing archæological and ethnological objects, including collections from the Queen Charlotte Islands, from Egypt, and from South

Equatorial West Africa.

3. This room opens into the great Museum Hall, on each side of which are alcoves with upright and table cases containing the collections in Palaeontology, arranged primarily to illustrate the successive geological systems, and subordinately to this, in the order of zoological and botanical classification, so as to enable the student to see the general order of life in successive periods, and to trace any particular group through its geological history.

4. At the extreme end of the Hall are placed the collections of minerals and rocks, arranged in such manner as to facilitate their systematic study. In the centre of the Hall are economic collections

and large casts and models.

5. In the upper storey or gallery of the great Hall are placed the zoological collections; the invertebrate animals in table cases in regular series, beginning with the lower forms; the vertebrate animals in upright cases, in similar order. The Philip Carrenter Collection of shells is especially noteworthy for its arrangement and completeness.

Papers or memoirs relating to certain type specimens in the collections can be obtained from the Museum Assistant. Classes of pupils from schools can be admitted on certain days, under regulations which may be learned from the Professors or from the Registrar of the University.

#### THE OBSERVATORY.

Latitude, N. 45° 30′ 17″. Longitude, 4h. 54m. 18s. 67. Height above sea level, 187 feet.

Superintendent: -C. II. McLeod, Ma.E.

The Observatory, in which courses of instruction are given in the use of meteorological instruments and in astronomical work, is situated at the head of the University campus.

Meteorological observations.—Records of temperature, atmospheric pressure, wind velocity and direction, and sunshine are obtained by self-recording instruments. Check observations are made at 7.40 a.m.,

3 p.m., and 7.40 p.m. on standard instruments.

The principal instruments employed are two standard mercurial barometers; one Richard barograph; one Richard thermograph; one Callendar thermograph; one Kew standard thermometer; two Pastorelli thermometers; one maximum thermometer; one minimum thermometer; one set of six self-recording thermometers, with controlling clock, battery, etc.; two anemometers; one wind vane; one anemograph with battery, etc.; one sunshine recorder; one rainband spectroscope and one rain gauge.

The Anemometer and Vane are on the summit of Mount Royal, at a point about three-quarters of a mile north-west of the Observatory. They are = feet above the surface of the ground and 810 feet above

sea level.

Soil temperatures are observed, in co-operation with the Physical Laboratory, by means of platinum thermometers at depths ranging from

one inch to nine feet.

The astronomical equipment consists of: The Blackman Telescope (6¼ in.); a photoheliograph (4½ in.); a 3¼ in. transit with striding level, etc.; a prismatic (8cm.) transit instrument, also arranged as a zenith telescope; a 2 in. transit in the prime vertical; two collimating telescopes; one sidereal clock; one mean time clock; one sidereal chronometer; one mean time chronometer; one chronograph; batteries, telegraph lines, and sundry minor instruments.

Observations for clock errors are made on nearly every clear night. Time exchanges are regularly made with the Toronto observatory. Time signals are distributed throughout the city by means of the noon time-ball, continuous clock signals, and the fire-alarm bells; and to the

country through the telegraph lines.

The longitude of the Observatory was determined in 1892 by direct telegraph connection with Greenwich, with exchange of observers and instruments. The position is believed to be the most accurately determined in America.

#### THE McGILL UNION.

The McGill Union stands on a convenient site at the Corner of Sherbrooke and Victoria Streets, within two minutes' walk of the Coilege Gates. The building measures 93 feet by 71 feet, and consists of three storeys and a basement. It has been creeted and furnished by Sir William Macdonald at a cost of over \$135,000. The building externally is an example of a severe type of English classic, executed in the local grey stone.

The main floor, entered from Sherbrooke Street, is devoted to dining and luncheon rooms. The dining table (table d'hôte and à la carte) will accommodate 120 at a time, and the luncheon room 80. It is, therefore, possible to lunch at least 500 students between the hours of 12 noon and 2 p.m.

On the second floor, billiard rooms, a news hall, a reading-room and library, a study and a lounging gallery (88 feet by 21 feet) are

provided.

The Great Hall, suitable for debates, public meetings, &c., is situated in the top storey. The hall measures 88 feet by 45 feet, and has a total seating capacity of 400. Adjoining the Hall is the Music Room, and at the top of the building four bedrooms will be found set aside for graduate members re-visiting the City.

The basement is divided between the kitchen and offices, the caretaker's quarters, baths, locker rooms, laboratories and an exercise room

24 feet by 38 feet for boxing and fencing.

Membership in the Union is open to all students of the University without restriction. The Constitution containing all necessary information, has been published and is now ready for circulation.

#### STRATHCONA HALL.

This building—the home of the Young Men's Christian Association of McGill University—is the property of the Association, and is not, therefore, strictly speaking, a University building.

Strathcona Hall is 55 feet wide by 110 feet deep, and is five storeys in height. The three upper storeys are arranged to affor I residential accommodation for about 60 men. The rooms on these floors are of various sizes. They are, for the most part, single, but some of them are arranged en suite. Each floor is amply provided with baths, etc., of the most modern type.

The second floor contains a large reading-room, a large gamroom, and five small rooms to be arranged as studies or for the use of various clubs and societies. The apartments of the Secretary of the Association are also on this floor.

The Secretary's Office is on the ground floor, which also contains sitting rooms, cloak rooms and a hall, capable of seating 350 persons.

The lasement, which is high and well lighted, has a lowling and as well as a suite of large rooms which may be used for dining purposes.

The huilding is throughout of the most modern type of construction, and is absolutely fire-proof.

# LABORATORIES, MUSEUMS AND WORKSHOPS.

### 1. LABORATORIES.

#### ASSAYING LABORATORY.

See Mining and Metallurgical Laboratories.

#### ASTRONOMICAL OBSERVATORY.

See Geodetic Laboratory.

#### BOTANICAL LABORATORIES.

The Botanical Laboratories occupy the upper floor of the central Arts building.

The laboratory for general Morphology provides table accommodation for twenty students, and is equipped with all the necessary appliances for the practical study of plants, either fresh or dry.

In connection with this laboratory, a large collection of dried plants is maintained, from which material is drawn for practical work.

The laboratories for special Morphology at present afford accommodation for twelve students. Each table is provided with a complete outfit of instruments and reagents. Provision is also made for accurate micrometric work, and for the production of accurate drawings by means of the camera lucida and Leitz's drawing instrument. More special instruments, including polariscope, spectroscope and photographing apparatus, afford opportunity for detailed studies in these several directions. A supply of physiological apparatus permits the demonstration through actual experimentation, of some of the more prominent plant activities as expressed in movement, transpiration, respiration, geotropism, movement of the nutrient fluids, rate of growth etc.

An investigator's table held by the University at the Biological Laboratory, Wood's Hall, Massachusetts, is available for such students as may successfully complete the advanced course of the Third and Fourth Years.

#### CEMENT LABORATORY.

The equipment of the laboratory renders it possible to carry out complete tests on the strength and properties of cements, mortars, concretes, concrete beams, etc., and includes:—

(a) Three one-ton tensile testing machines, representing the best English and American practice.

(b) One 50-ton hydraulic compressive testing machine.

(c) Volumenometers for determining specific gravity and for determining the carbonic acid in the raw material.

(d) Faija steaming apparatus for blowing tests.(e) Mechanical hand and power mixers.

(f) Apparatus for determining standard consistency.(g) Vicat's and Gilmore's needles for determining set.

(h) Weighing hopper, spring and other balances.

- (1) Gun metal moulds for tension, compression and transverse test pieces, and special apparatus for placing mortar into the moulds under a uniform pressure, which, together with the mechanical mixers, enable the personal errors to be eliminated.
- (1) Sieves of 20, 30, 40, 50, 60, 70, 80, 100, 120 and 180 meshes per lineal inch for determining the fineness.

(k) A Boehme hammer, with all accessories.

The laboratory is also fitted with copper-lined cisterns, in which the briquettes may be submerged for any required time, and with capacious slated operating tables, bins and tin boxes for keeping the cement dry for any period.

In the Cement Testing Laboratory, researches have been made on the strength of mortars set under pressure, the effect of frost on natural and Portland cements, the effect of sugar on lime and cement mortars, the strength of lime and cement mortars and of the bricks in brick piers, the effect of fine grinding on the adhesive strength of cements, of using hot water in mixing mortars.

In addition to these researches, a large amount of work is done each year by the third year students, in investigating the specific gravity, fineness, setting properties, constancy of volume, and the tensile, compressive and transverse strengths of cement, both neat and with sand.

#### CHEMICAL LABORATORIES.

## (In the Chemistry Building.)

The main lecture-theatre, extending through two storeys, is entered trom the ground floor, and seats nearly 250 students. The lecture-table is supplied with coal-gas, oxygen and hydrogen, electricity, water vacuum, down-draught, etc., and can be well seen from all parts of the room.

Besides the main lecture-theatre there are three smaller class rooms, accommodating from 40 to 60 students each.

The three principal laboratories have each a floor-space of about 2,400 square feet, and together have accommodation for nearly two hundred students working at a time. They are lighted on three sides, and have ample hood space. One is intended for beginners, and the other for more advanced work, more particularly in qualitative and quantitative analysis. In connection with each of the main laboratories is a balance-room, equipped with balances by several of the best makers.

Physical Chemistry is provided for in a special laboratory, nearly 30 by 40 feet, lighted from the north, and supplied with electricity, steam, vacuum pumps, etc. The equipment of this department consists of the apparatus necessary for the determination of the specific gravities of solutions, of the depression of freezing point, of the rise of boiling point, and of the densities of gases and vapours. There are constant-temperature baths for accurate measurement of solubilities, kohlrausch's apparatus for determining the electrical conductivity of solutions, and the apparatus necessary for measuring the electromotive forces generated between metals and their solutions, and in voltaic cells generally. There are also calorimeters for measuring the heat effects produced in chemical reactions. On the

same floor there is an optical room furnished with refractometers for measuring the refractive indices of solutions, goniometers, polariscopes and spectroscopes. Other forms of apparatus will be added as required for research work.

Immediately adjoining the laboratory of physical chemistry is the photographic department, supplied with two dark rooms, arranged on the maze system, and provided with the necessary appliances for all ordinary photographic work, including an enlarging camera, and apparatus for micro-photography.

The laboratory for gas analysis has a northern exposure, and is fitted with a large tank to contain water at the temperature of the room, for use in obtaining a constant temperature in the measurement of gases. The tables are arranged for work with mercury, and the laboratory is supplied with the apparatus of Hempel, Dittmar, Orsat, Elliot and others. It contains also Fleuss, Boltwood, and Töpler pumps for producing high vacua.

The laboratory for electrolytic analysis is supplied with accumulators, thermopile, platinum electrodes, rheostats, ammeters, volt-

meters, etc.

Another room has lately been equipped with electric furnaces and other appliances for electro-chemical work.

The organic department comprises a laboratory for preparations and research, a combustion room for analysis, a dark room for polariscope and saccharimeter work, and a lecture room. The laboratory is fitted with all the necessary apparatus for organic research—special hoods for work with poisonous gases, regulating ovens for digesting and drying at various temperatures, filter presses for the extraction of raw materials, and various forms of apparatus for distillation in vacuo. The dark room is equipped with polariscopes and saccharimeters for sugar work. There is a large supply of the necessary organic chemicals, which are supplied free of charge to students engaged in routine or research work in this department.

The laboratory for determinative mineralogy has places for 28 students, and is supplied with abundant materials for practical work. It adjoins the lecture-room in which the lectures in advanced mineralogy are delivered. The mineralogical department is also provided with suitable machinery, run by electricity, for the cutting and polishing of minerals and rocks.

Ine Library contains a valuable collection of the most recent English, French, and German books, and sets of various journals and transactions, including the Berichte der Deutschen Chemischen Gesellschaft, Journal für Praktische Chemie, Chemisches Centralblatt, Fresenius' Zeitschrift für Analytische Chemie, Annales de Chemie et de Physique, Journal of the Chemical Society. Journal of the Society of Chemical Industry, Chemical News, Mineralogical Magazine, Mineralogische und Petrographisiche Mittheilungen, etc. The library is open to students under such restrictions as are necessary to prevent damage or loss of books.

The rooms for allied purposes have, as far as possible, been grouped together on the same floor, and there is a hydraulic lift running from the basement to the attic. The offices and principal laboratories and supply rooms are also connected by a system of telephones. The building is practically fire-proof.

#### CHEMICAL LABORATORY.

(In the Medical Building.)

The main students' laboratory is on the ground floor and is 80 feet in length by 45 feet wide, with a ceiling 20 feet high. There is sufficient bench accommodation and equipment for from 150 to 180 students at a time. The room is well lighted and excellently ventified, fresh warm air being supplied, and the foul air removed, by fans. In addition to this large laboratory there is a smaller one for private research work and on the opposite side of the hall, next to the Jecture theatre, three preparation rooms.

#### ELECTRICAL LABORATORIES.

These laboratories contain all principal types of commutating, synchronous, and induction machinery, together with ample facilities for investigating their actions. The several laboratories are the Standardizing Laboratory, the Fourth Year Dynamo Laboratory, the Third Year Dynamo Laboratory, the High Tension Testing Room, the Photometer

Room, and the laboratory for special investigation.

(a) The Standardizing Laboratory is equipped with four Kelvin Balances for alternating and direct current measurements, best range .025 to 600 amperes; a Kelvin standard electrostatic multicellular voltmeter, Board of Trade pattern; a Weston laboratory standard Ammeter, range with shunts o to 1500 amperes; a Weston Laboratory standard Voltmeter range with multipliers, o to 3000 volts; a Weston Laboratory standard wattmeter range 0-7500 watts; special Weston alternating current voltmeters and wattmeters: a special Elliott Potentiometer with standard cells for electromotive force and current measurement; means for measuring high and low resistances, capacity, and di-electric strength of insulating materials, etc., etc. Direct current for the Laboratory is furnished either from the service plant, from a special motor-dynamo. the voltage of which can be continuously varied from 0 to 10 volts, current capacity 300 amperes; from a 75 K.W. hour storage battery arranged in sections, or from any d.c. machine in the Fourth Year Dynamo Laboratory. Alternating current of several wave shapes and frequencies up to 150 periods per second, and voltages up to 200,000 is available. A special transformer having a current capacity of 800 amperes is used for alternating current ammeter calibration. For alternating current voltmeter calibration, a special regulator is provided, by which voltages from 0 to 200 can be obtained in as small steps as desired.

(b) The Fourth Year Dynamo Laboratory. The former method of driving all dynamos from an overhead line shaft and clutch pulleys has been abandoned and individual motors supplied for each machine. Each motor is provided with suitable series turns and variable shunt, the whole being connected to act with or against the shunt turns, as a compounding or differential effect is desired. The speed of the motors can be varied about 50 per cent, by field rhepstat. This gives perfect control of dynamo speed. Current for operating is obtained from six independent sources of supply; one 75 KW, direct connected unit in the service plant; 3 sets of 25 K.W, hour chloride accumulators and two city supply circuits. All generators and motors are mounted on strong testing benches fifteen inches high, with slotted

floor, so that any machine can be placed anywhere on the benches and secured in place. Two small travelling cranes over the benchesallow machines to be easily shifted. All wiring is done in conduits under the floor, and large sectional switchboards are provided for current distribution about the laboratories. Special testing tables, permanently wired up and fitted with circuit breakers, switches, etc., facilitate the work. Sixteen alternating current machines, including single, two and three phase generators, synchronous motors, compensators, and synchronous converters, together with a large amount of stationary and rotary induction apparatus, are provided for alternating current work. Several of the alternating current dynamos are of the inductor type and several different shaped inductors are provided with each machine to give different wave forms. A specially arranged induction motor serves as a frequency changer. The laboratory is also provided with between eighty and ninety voltmeters, ammeters, and wattmeters of standard make, and of different ranges; condensers, rheostats, standard resistance, etc.

- (c) The Third Year Dynamo Laboratory. This laboratory is equipped with twenty commutating machines, generators; shunt, series and compound wound motors, boosters, motor generators, dynamotors, closed and open coil arc machines, varying in capacity from a fraction of a kilowatt to 40 kilowatts, of many different types and makes. This laboratory is also provided with between fifty and sixty voltmeters, ammeters and wattmeters of standard make, and of different ranges; rheostats, controllers, etc., are also provided.
- (d) High Tension Testing Room. This room is equipped with four 10 K.W., 200-50,000 volt. transformers with switch board and suitable controlling devices. The voltage can be varied in small steps by means of a Stillwell regulator inserted in the primary and by varying the field of the dynamo supplying current. A Kelvin direct reading electrostatic voltmeter, range 100-100,000 volts., gives a means of measuring high voltages directly. A 200-20,000 volt testing transformer is used for insulation testing.
- (e) The Photometer Room. This room is equipped with standard photometric apparatus for candle power measurements on arc and incandescent lamps.
- (f) The laboratory for special investigation adjoins the Standardizing Laboratory. Meter and transformer testing are also done in this room.

#### GOEDETIC LABORATORY.

The equipment of this laboratory consists of:—

- (1) Linear instruments.
  - (a) A Rogers comparator and standard bar for investigating standards of length.
  - (b) A fifty-foot standard and comparator for standardizing steel bands, chains, tapes, rods, etc.
  - (c) A Whitworth end-measuring machine and set of standards.
  - (d) A Munro-Rogers linear dividing engine.
- (2) Circular instruments.
  - (a) A Rogers' circular comparator and dividing engine.(b) Two level triers.

(3) Time:—

- (a) An astronomical clock and clock circuit in connection with the observatory clocks.
- (b) Chronometers running on mean and sidereal time

(c) Chronograph.

(4) Gravity.—A pertable Bessel's reversible pendulum apparatus with special pendulum clock and telescopic apparatus for observing coincidences of beats.

(5) A water gauge apparatus for testing aneroid barometers.

(6) Magnetic instruments:-

(a) A Kew dip circle.

(b) A Kew filar magnetometer.

The laboratory is constructed with double walls and enclosed air spaces, and has a special heating apparatus, so that the temperature within may be brought to, and held at, any desired degree.

The ordinary course of instruction in this laboratory is described on page 195.

## Astronomical servatory.

The observatory equipment for the purpose of instruction in practical astronomy consists of:-

I. A Bamberg prismatic transit with zenith attachment.

Two astronomical transits for meridian observations. Collimating telescopes.

3. A Troughton & Simms zenith telescope.

4. An astronomical transit in the prime vertical.

5. Sidereal and mean time clocks and chronometers.

6. Chronograph and electrical circuits by which observations and clock comparisons within or without the observatory may be made.

# LABORATORY OF HISTOLOGY.

The Laboratory of Histology extends across the entire end of the Laboratory Wing of the Medical Building, a distance of over 100 feet, having a breadth of 28 feet. This room is splendidly lighted and accommodation is furnished for about 100 students. There is also a smaller room for the professor and his assistants and for research and preparation work.

# LABORATORY OF HYGIENE.

The main laboratory of Hygiene has a floor space of 60 it. by 50 ft. and is well equipped with apparatus for demonstration and practical work in Hygiene. Adjoining this is a smaller private laboratory and balance room. The arrangements for light and ventilation are excellent.

# HYDRAULIC LABORATORY.

Here the student studies practically the flow of water through orifices of various forms and sizes, through submerged openings, over weirs, through pipes, mouth-pieces, etc.

The equipment of this laboratory includes:-

- (a) A large Experimental Tank, 30 ft. in height and 25 sq. ft. in sectional area. With this tank experiments are conducted on the flow of water through orifices either free or submerged. By a simple arrangement the orifices can be rapidly interchanged without lowering the head, and with the loss of only about one pint of water. The indicating and measuring arrangements connected with the tank are exceedingly delicate and accurate, all times being automatically recorded by an electric chronograph, and valuable results have already been obtained. By means of a special connection with the city water-supply, the available head of water may be increased up to 280 ft.
- (b) An Impact Machine, which renders it possible to measure the force with which water flowing through an orifice, nozzle, or pipe, strikes any given surface, and also the impulsive effect of the water

entering the buckets of hydraulic motors.

(c) A Rife's Hydraulic Ram.
(d) A Jet Measurer specially designed for investigating the dimensions of the jet produced in the phenomena known as "the inversion of the vein." With this apparatus it is possible to determine, within .001 inch, the dimensions of a jet in any plane and at any

point of the path.

(e) Numerous orifices, nozzles, and mouth-pieces.

(f) A specially designed stand-pipe, with all the necessary connections for pipes of various sizes for investigations on frictional resistance. The pressures are measured by recording gauges, etc.

(g) A flume about 35 feet in length, by 5 ft. in width by 3 ft.

6 ins. in depth.

- (h) Weirs up to 5 ft. in width, and with a depth of water over the sill varying from nil to 8 inches. A weir-depthing machine, with three adjustable heads, gives the surface depth of the stream at any three points in a transverse section. The velocity of the stream is also determined by means of a double Pitôt tube.
  - (i) Numerous hydraulic pressure-gauges. (j) A mercury column 60 feet in height.

(k) Gauge-testing apparatus.

(1) Various rotary, and piston meters, and a Venturi meter.

(m) Apparatus for illustrating vortex motion.

(n) Apparatus for illustrating vortex ring motion, and for deter-

mining the critical velocity of water flowing through pipes.

(0) Five specially built gauging tanks with suitable indicators, each having a capacity of 800 cubic feet, for determining the critical velocity of water flowing through pipes. Also other portable tanks.

(b) Transmission and absorption dynamometers.

(q) An experimental centrifugal pump, which can be tested with varying heights of suction and discharge.

(r) An inward-flow turbine, a new American turbine, an outward-

flow impulse turbine, a Pelton, and other motors and turbines.

(s) A three cylinder rotary hydraulic engine of the Brotherwood type has been added to the laboratory equipment during the past year.

(t) Graduated measures of various sizes; standard gallon and litre measures with glass strikes. This Laboratory is also provided with a set of pumps, specially designed for experimental work and research. They are adapted to work under all pressures up to 120

Ibs. per sq. in., and at all speeds up to the highest found practicable. The set is composed of three vertical single acting plunger pumps of 7 in. diam., 18 in. stroke, driven from one shaft. They have two interchangeable valve chests, and it is arranged that both the valves and their seats may be removed and replaced by others. The pumps are also provided with a double set of continuous recording indicators designed in the laboratory and having electrical connections. With these, an accurate record of the suction and discharge valves may be obtained at any given time, all fluctuations of speed, pressure, etc., being automatically recorded.

(u) Hele Shaw's apparatus for experiments on stream-line flow.

## MECHANICAL ENGINEERING LABORATORY.

The equipment of this Laboratory includes:—A belt-testing machine, capable of taking a six-inch belt at 15 feet centres (the machine includes a special hydraulic dynamometer, and a friction brake, and will absorb 15 H. P.); a Thurston railway-pattern oil-tester, fitted with water cooling and heating apparatus for varying the temperature of the brasses as desired; an Engler standard viscosimeter, and other necessary apparatus for the physical testing of lubricants; a specially designed hydraulic support and fittings for carrying out experiments on the action of cutting tools in the lathe; apparatus for experiments on the efficiency of pulleys and hoisting appliances, and on the efficiency of worm and other gearing; apparatus for governor-testing; apparatus for studying problems connected with the balancing of reciprocating engines.

This Laboratory is used in connection with the courses in Mechanical Engineering subjects.

## METALLURGICAL AND ASSAYING LABORATORIES.

These consist of a large furnace room 2.200 sq. feet, for metallurgical operations, a furnace room for assaying of 1.300 sq. feet, a balance room, small analytical laboratory, and parts of other rooms, which are utilized for pyrometric and photo-microscopic work. The furnace room is fitted with a water-jacket blast-furnace. 21 inches inside diameter, for smelting lead and copper ores; also a hand reverberatory furnace for roasting ores, having a hearth 14 ft. by 6 ft., a Bruckner roasting furnace and an English cupellation furnace.

It has also a large lead-lined chlorination-barrel for high pressures, with filter press, air pump, etc.

The furnace room adjoins the milling and ore dressing room (see below) and ores which have been crushed and dressed can easily be conveyed into the furnace room for roasting, smelting or leaching treatments.

In addition to this comparatively large scale plant, apparatus is being provided to enable the students to study in detail the more important metallurgical operations using quantities of ore or metallurgical products of usually not more than a few pounds in weight. With such appliances the work of the student can be of a more individual character than is generally possible with large scale plant, and the reactions which occur can be more easily and exactly studied.

For the purpose of small scale work there is a large crucible furnace which can be used with either natural or forced draught, a large gas furnace which can be used either as an oven furnace or a muffle furnace, and a number of small muffle and crucible

furnaces in the assaying laboratory.

In the autumn of 1901 the students erected a model brick blast furnace, and used it successfully for smelting copper ores. A Roots' blower has been provided for the blast furnaces, and connections for supplying forced draft have been made to the gas and reverberatory furnaces. Electric furnaces have been constructed for carrying on operations at very high temperatures, and there is a low voltage dynamo and storage battery for electrolytic work. Leaching operations on a small scale are conducted in stoppered bottles which can be agitated by machinery.

A powerful hydraulic press and a piece of apparatus for compressing gases by hydraulic power are available for experiments that

have to be conducted under great pressure.

The Assaying Laboratory is equipped with a large soft coal assay furnace, and with a number of small muffle and crucible furnaces fired with coke; the large gas muffle furnace in the furnace room is also available for assaying purposes, and there is a small muffle furnace and a crucible furnace fired by gasoline.

Adjoining the assaying laboratory, is the balance room and a

small laboratory for chemical work.

In another room are a number of electrical pyrometers of both the Le Chatelier and Callendar type, and a micro-photographic outfit for recording the microscopic structure of metals and alloys. A polishing machine, worked by power, has been installed to prepare the specimens for examination.

The courses of instruction in these laboratories are described on

pages 184 to 186.

#### MINING AND ORE-DRESSING LABORATORIES.

The Department of Mining Engineering has one large laboratory for ore-dressing and a number of rooms of moderate size equipped for use as special laboratories, offices, lecture room, dark room, machine shop, etc. The effective floor space is about 6,600 square feet, in addition to which the departmental store rooms, ore bins, etc., have an area of 1,000 feet.

The ore-dressing laboratory proper has about 4,200 feet of floor

space and is 25 feet high in the centre.

It is equipped with two classes of apparatus. First, a large number of pieces especially designed for individual work on a small Many of these are for elementary investigations and demonstrations of a theoretical nature, others are small scale reproductions of typical ore-dressing and milling machines. Second, a complete plant of standard apparatus for crushing, sampling, milling, con-The apparatus last mentioned has centrating and coal washing. been chosen from the best designs in common use and each important class of ore-dressing machinery is represented by two or more different types in order that comparative tests may be made. Each machine is so arranged that it may be used, tested and cleaned up independently, but when expedient, a number of machines can be connected by automatic conveyors and thus complete working plants of many kinds can be improvised, each of sufficient capacity to test large lots of material under approximately working conditions.

The chief pieces of apparatus in the laboratory are rock-breakers of four kinds. Blake, Dodge, Gates, and Sturtevant, for coarse crushing; Stamp mills of 600 and 950 lbs., respectively, and a small steam stamp for the fine crushing and amalgamating of gold ores; Huntingdon centrifugal roller mill, for crushing and amalgamating; lugh speed steel rolls for fine crushing; Gates' grinder for preparing samples, and a ball mill and several pans for extremely fine grinding.

Following these there is a Bridgman automatic sampler, and a series of trommels and hand and power shaking screens for sizing the crushed ores; two specially designed jigs of two and four compartments, with adjustable eccentric, cam and slide mechanisms, a pneumatic jig, and several small hand and power jigs for coarse concentration; revolving, humping and stationary glass tables; Frue vanner, Wilfley table; Bartlett table, Bartlett cauvas table, etc., for separating valuable minerals contained in the fine sands and slimes; plates, pans and barrels for amalgamating gold and silver ores; vats and other apparatus for cyaniding, chlorinating and other leaching processes; spitzkasten, spitziutte, magnetic separators, coal washers, delly tubs, and various other special pieces of ore-dressing apparatus.

An hydraulic lift and a complete series of helt and bucket elevators, feeders, samplers, etc., are provided for use in heavy continuous work. The motive power used is electricity, generated in the University power and light station, and utilized through a number of electric motors conveniently placed near the machines to be operated. The department is equipped with the most approved apparatus for electrical measurements, and is thus able to make frequent and accurate determinations of the amount of power used by each machine, and for any especial condition of use.

In addition to the main laboratory there are excellent facilities for advanced and research work—including a thoroughly equipped analytic and assay laboratory and a photographic room. The department possesses an excellent Fuess petrographical microscope, a good set of weighing and measuring devices, and a number of pieces of special apparatus for advanced theoretical investigation.

The courses of instruction in these laboratories are described on pages 187 to 190.

## LABORATORY OF PATHOLOGY AND BACTERIOLOGY.

For the use of this Department an extensive series of laboratories has been set aside on the top floor of the Laboratory wing. The commodious and well-lighted students' laboratory is capable of accommodating 70 students at a time. In one end of this room is a small demonstration theatre and at the other a preparation room from which necessary materials are given out. In addition to the students' laboratory there are eight smaller rooms,—professor's office and library, culture room, photographic room etc.

## PETROGRAPHICAL LABORATORY.

The Petrographical Laboratory, containing the chief rock collections of the University, is situated in the Chemistry and Mining building, and is arranged for the use of students in the Mining Course as well as for those desirious of taking advance I work, such as Post Graduate

students and those taking Honour Courses in Arts. It is provided with a number of petrographical microscopes by Seibert, Crouch, and Fuess, as well as with models, sets of thin sections, electro-magnets, heavy

solutions, etc., for petrographical work.

A collection of typical rocks has been especially prepared for the use of students, and a complete equipment for cutting, grinding, and polishing rocks, has been installed, which runs by electric power and gives excellent facilities for the preparation of thin sections for microscopic use.

For advanced work and petrographical investigation Dr. Adams' extensive private collection of rocks and thin sections is available

for purposes of study and comparison.

## LABORATORY OF PHARMACOLOGY.

The space devoted to the practical teaching of pharmacology and pharmacy is divided into, (1) a large students' laboratory, 45 ft. by 40 ft., well lighted, well equipped and provided with benches, lockers and sets of apparatus necessary for individual student work in pharmacology and pharmacy, and (2) four smaller research rooms provided with the The equipment of necessary apparatus for extended research work. these laboratories was supplied through the generosity of Mr. David Morrice.

#### THE MacDONALD PHYSICAL LABORATORIES.

The equipment of the Macdonald Physical Laboratories comprises: (1) apparatus for illustrating lectures; (2) simple forms of the principal instruments for use by the students in practical work; (3) the most recent types of all important instruments for exact measurement, to be used in connection with special work and

research.

The basement contains the cellars, furnaces, and janitor's apartments at the west end of the building. The machine room—containing a small gas engine and dynamo, which are fitted for testing, but can also be used for light and power, a motor-alternator and a motor-dynamo - is situated at the extreme western corner of the basement so as to be as far removed as possible from the delicate magnetic and electrical instruments. Here is also the switch board for controlling the various circuits for supplying direct or alternating current to different parts of the building, and a Liquid Air Plant, consisting of a Whitehead Torpedo Air-compressor, capable of giving 250 atmospheres, driven by an II-Horse Power Electric Motor, and a Hampson Liquefier with a capacity of I litre per hour. mulator Room contains a few large storage cells, charged by the motor-dynamo, which are fitted with a suitable series-parallel arrangement and with rheostats for obtaining and controlling large currents up to 4,000 amperes for testing ammeters and low resistances, etc.

The Magnetic Laboratory contains magnetic instruments and variometers of different patterns, and also a duplicate of the B. A. Electro-dynamometer, which has been completely remodelled and set up with great care for absolute measurements of current. Laboratory, on the opposite side of the basement contains a very fine Lorenz apparatus for the absolute measurement of resistance, constructed under the supervision of Prof. Viriamu Jones. It also contains a set of Ewing Seismographs and a pair of Darwin Record-

ing Mirrors for measuring small movements of the soil.

There is a Constant Temperature Room, surrounded by double walls, which contains a Standard Rieffler Clock, and is fitted for comparator work.

The ground floor contains at the western corner a small machine shop, fitted with a milling machine and suitable lathes and tools, driven by electric motors, and such appliances as are required for the making and repairing of the instruments, for which the services of a mechanical assistant are retained. There is also a store room for glass, chemicals and cleaning materials, and extensive lockers and lavatories for the use of the students.

The Main Electrical Laboratory is a room 60 feet by 40, and is fitted with a number of brick piers, which come up through the floor, and rest on independent foundations, in addition to the usual slate shelves round the walls. This room contains a large number of electrometers, galvanometers, potentiometers and other testing instruments of various patterns, and adapted for different uses. It connects with a smaller room at the side, in which are kept the resistance boxes and standards, and also the capacity standards. A small research laboratory, adjoining the electrical laboratory, is fitted up for the study of electrical discharge in high vacua, and for work with Rôntgen and uranium radiation, and with ultra-violet light.

The first floor contains the main Lecture Theatre, with seats for about 250 students. The lecture table is supported on separate piers, which are independent of the floor. Complete arrangements are provided for optical projections and illustration. The Preparation Room in the rear contains many of the larger pieces of lecture apparatus, but the majority of the instruments, when not in use, are kept in suitable cases in the adjoining apparatus room. On the same floor there is the Heat Laboratory, devoted to advanced work in thermometry, pyrometry and calorimetry and also to such electrical work as involves the use of thermostats and the measurement of the effects of temperature. There are also two smaller rooms for professors and demonstrators.

The second floor is partly occupied by the upper half of the Lecture Theatre. There is also an Examination Room for paper work, a Mathematical Lecture Room, with a special apparatus room devoted to apparatus for illustrating Mathematical Physics, and a special Physical Library chiefly devoted to reference books and periodicals relating to Physics. A store room, lavatories and Professors' Room

occupy the remainder of the flat.

The third floor contains the Elementary Laboratory a room 60 feet square, devoted to elementary practical work in heat, sound, light, electricity and magnetism. There is a Demonstrators' room adjoining, and an optical annex devoted to experiments with lenses, galvanometers, etc., which require a darkened room. On the other side of the building there is a spectroscopic room, containing a six-inch Rowland grating, with mountings by Brashear, and other large spectrometers and polarimeters. Also a series of smaller optical rooms, including a photometric room, especially fitted for Arc photometry, and a dark room for photographic work. Communication between the different flats is facilitated by means of a hydraulic elevator. The building is lighted throughout by electricity, and heated by hot water. The walls are of pressed brick, and the floors of hard maple. There is a ventilating system, consisting of Tobin tubes and suitable exit flues, assisted by a fan in the roof.

Mathematics and Dynamics.

Part of this floor, allotted to the subject of Mechanics, contains instruments for measuring length, area, volume, time, mass; Atwood machines and a Galileo inclined Plane for the study of the laws of motion; Willis Apparatus for experiments in statics and friction on a large scale; Simple, Kater and Ballistic Pendulums; and torsion and rotation apparatus for determining moments of inertia. The practical work in this section is arranged to run parallel with and illustrate the lectures in Dynamics delivered in the first year, and also those in the second year of the Faculty of Arts.

#### LABORATORY OF PHYSIOLOGY.

The department of Physiology occupies a large portion of the top floor of the Laboratory Wing of the Medical Building. The space allotted to this department is divided up into a large students' laboratory, 45 by 58 feet, and seven smaller rooms—professor's office and library and preparation and research rooms. The main laboratory is furnished with sufficient benches, apparatus, etc., to allow of 80 students working at one time. The research rooms are supplied with the more complicated apparatus necessary for extended research work.

#### TESTING LABORATORIES.

These laboratories are equipped with apparatus for the determination of the physical properties of the materials of construction and for illustrating the fundamental laws of the strength of materials. The equipment includes:—

(a) A Riehlé testing machine of 60,000 lbs. capacity, a Wicksteed 100-ton and an Emery 50-ton machine for testing the tensile, compressive and transverse strength of the several materials of construction. To the Wicksteed has been added a specially designed arrangement, by which the transverse strength of girders and beams up to 26 ft. in length can be determined. Special holders have also been designed and made in the laboratory for investigating the tensile and shearing strength of timber, and for the testing of wire ropes, belts, etc.

belts, etc.

(b) An Impact Machine, with a drop of 30 ft, and with gearing which will enable specimens to be rotated at any required speed, and the blows to be repeated at any required intervals. By means of a revolving drum, a continuous and accurate record of the deflections

of the specimens under the blows can be obtained.

(c) A Torsion Machine with a specially designed anglemeasurer, by which the amount of the torsion can be measured with

extreme accuracy.

(d) An Accumulator, furnishing a pressure of 3,600 lbs. per square inch, which is transmitted to the several testing machines, and ensures a perfectly steady application of stress, an impossibility when any form of pump is substituted for an Accumulator. An automatic electric motor has been designed in the laboratory and constructed for the purpose of actuating the accumulator.

(e) A Blake and a Worthington Steam Pump, designed to work against a pressure of 3,600 lbs. per square inch. The Accumulator may be actuated by either of the pumps, and, if at any time it is

necessary to do so, either of the pumps may be employed to actuate the testing machine direct. When in operation the work of the pump and the accumulator is automatic.

(f) Extensometers of the Bovey, Ewing, Unwin, Martens

Marshall and other types.

(g) Portable cathetometers, and also a large cathetometer specially designed and constructed for the determination of the extensions, compressions and deflections of the specimens under stress in the testing machines.

(h) Various electric motors for working the several machines.

- (i) A drying oven for beams up to 26 ft. in length. The hot air in this oven is kept in circulation by means of a fan driven by an electric motor.
- (1) Numerous gauges, amongst which may be specially noticed an Emery pressure gauge, graduated in single lbs. up to 2,500 lbs. per square inch. All of the testing machines are on the same pressure circuit, and are connected with the Emery gauge and also other standard gauges, including recording gauges. This arrangement provides a practically perfect means of checking the accuracy of the testing.

(k) Special apparatus and recording gauge for the testing of hose,

(1) Dynamometers for measuring the strength of textile fabrics, the holding power of nails, etc.

(m) Apparatus for determining the elasticity of long wires.

(n) Apparatus for determining the hardness of materials of construction.

(o) Zeiss and other microscopes.

(p) Delicate chemical and other balances. A very important part of the equipment is the Oertling balance, capable of indicating with extreme accuracy weights of from .00001 lb. up to 125 lbs.

(q) Apparatus for the microscopic study of metals and for micro-

scopic photography.
(r) Micrometers of all kinds.

- (s) A transverse bending machine which is adapted for loads up to 3000 lbs, and for beams of 10 ft, span and a testing machine for applying bending and torsion simultaneously.
- (t) Small beam testing machines, used to illustrate the laws of the bending of beams, both when the ends are free and when they are fixed.
- (u) Two small tension machines, in which experiments are made on metals, the strains being within the elastic limit.

(2) Apparatus with experiments for long wires, adapted for ex-

periments on wires 60 ft. in length.

(ac) A lever machine of experiments on alternate twisting.

(x) A testing machine for breaking tests on wires.

(y) A powerful hydraulic press for compression tests on metals, cements, stone and similar materials.

(z) Moment of Inertia apparatus.

## THERMODYNAMIC LABORATORY.

The Thermodynamic Laboratory is furnished with an experimental steam engine of 120 I. H. P., specially designed for investigating the behaviour of steam under various conditions; the cylinders are 612 inches, 9 inches, 13 inches, and 18 inches in diameter, and the stroke of

all the pistons is 15 inches. The cylinders can be so connected as to allow of working as a simple, compound, triple, or quadruple expansion engine, either condensing or non-condensing, and with any desired rate of expansion. The jackets are so fitted as to permit of measuring independently the water condensed in the cover, barrel, or bottom jacket of each cylinder, and the engine can be worked with any desired initial pressure up to 200 lbs. per square inch. The measurements of heat are made by means of large tanks, which receive the cooling water and the condensed steam. There is an independent surface condenser and air pump. Two hydraulic absorption brakes and an alternative friction brake serve to measure the mechanical power developed.

The Laboratory also contains the following machinery:—

A Robb automatic cut-off engine, having a cylinder 10 1-2 inches in diameter by 12 inches stroke. This engine is specially fitted up for the measurement of cylinder temperatures, and can be run at speeds up to 300 revolutions per minute.

An automatic high speed engine by Macintosh & Seymour, having a cylinder 12 inches diameter by 12 1-2 inches stroke. In connection with this engine there is an automatic recording apparatus for registering the load on the brake.

A hot-air engine built by Woodbury Merrill of Ticonderoga.

An Atkinson "Cycle" gas engine, having a cylinder 7 inches diameter by 2 inches stroke, and indicating 6 H. P.

An Otto gas engine (built in the workshops of the Department), having a cylinder 8 1-2 inches diameter by 12 inches stroke, and indicating 12 H. P.

A "Dake" steam engine of 4 H. P.

A two stage air compressor taking 40 H. P., and having cylinders 10 inches and 17 inches in diameter, by 15 inches stroke. The compressor delivers its air into reservoirs placed beneath the floor of the machine shop, and is provided with an intercooler whose capacity can be varied as desired.

A high speed horizontal engine having a cylinder 6 inches diameter by 9 inches stroke, and operated by compressed air.

A gas-fired preheater for the above engine.

A standard 9 1-2 inch Westinghouse air brake pump, fitted for testing and for supplying compressed air for experimental and other purposes.

A non-rotative Blake steam pump, having steam and water cylin-

ders, 4½ and 2¾ inches diameter and 4½ inches stroke.

The smaller apparatus belonging to the laboratory includes the necessary equipment of weighing machines, brakes, calorimeters, thermometers, gauges, pyrometers, fuel testers, indicators, planimeters, and a Moscrop recorder.

The boiler installation of the Engineering Building supplies steam for heating and power purposes, and is so arranged as to be available for experimental work in connection with the Thermodynamic Laboratory. It comprises boilers of five distinct types as follows:—

One Cornish boiler, for heating service, rated at 50 H. P.

One locomotive boiler, Belpaire type, 100 H. P. One internally fired tubular boiler, 120 H. P.

Two Babcock-Wilcox water-tube boilers, each 60 H. P.

One Yarrow water-tube boiler, fitted in a closed stokehold, for working under forced draft, rated at 150 H. P.

These boilers are provided with the necessary tanks, weighingmachines and apparatus for carrying out evaporative tests.

#### ZOOLOGICAL LABORATORIES.

The Zoological Department occupies the whole of the uppermost floor of the east wing of McGill College and the larger portion of the floor immediately below.

It consists of:-

- (a). A large laboratory affording accommodation for a class of 90 students.
  - (b). A smaller laboratory capable of seating about 18 students. (c). Three smaller laboratories fitted up for purposes of research.

(d). A room fitted up for the University Osteologist.

Dissecting trays, simple and compound microscopes, reasonable quantities of the ordinary reagents and of glass are provided by the department, but students must provide themselves with dissecting instruments, and with razors.

The Department is provided with four large tanks and a number of smaller ones in order to maintain a supply of fresh specimens

throughout the winter.

The subjects for practical work, are, as far as possible, selected

from species inhabiting the vicinity of Montreal.

The laboratories are well provided with thermostats, microtomes. apparatus for microphotographic work and other instruments required for advanced research. There is also a small library attached to the department.

## 2. MUSEUMS.

## ANATOMICAL MUSEUM.

Director:—Professor F. J. Shepherd. M. JULES BAILLY, OSTEOLOGIST AND ARTICULATOR.

This Museum occupies a large room adjoining the Anatomy Lecture Room and Dissecting Room in the Medical Building. Smaller apartments in connection are used for private research, which is encouraged in every way by the Faculty.

The Museum is well furnished and comfortable, and students have every opportunity of studying human, comparative and applied

Anatomy.

This department has during the past few years added a very complete collection of plaster and papier maché models by Steger, after the well-known works of His and Braune, comprising:-

(a) A complete set of Steiger's brain selections.

(b) Models of the cerebro-spinal and sympathetic nervous systems, viscera, muscles, etc.

(c) Professor Cunningham's well-known and beautiful casts of the head showing the relation of the cerebral convolutions to the skull and its sutures.

(d) A large collection of human brains, made by Professor Osler, formerly of this University, exhibiting the various types and extremes

(e) A large and rare collection of anomalies of the renal wessels

and ureter, and the aorta and its branches.

(f) In Comparative Anatomy the student will find a fair amount of material, the study of which will greatly aid him in the elucidation of many points in Human Anatomy.

(g) Some beautiful dissections of the semi-circular canals of the ears of fishes and also specimens showing the nervous system of fishes. Made and presented to the Museum by Dr. Cresswell Shearer.

(h) Many skeletons mounted by Mons. Jules Bailly, Articulator to the University, representing the various classes, orders, genera and

species of the animal kingdom may be consulted.

(i) A large collection, showing the pectoral girdle in birds, has been prepared under the supervision of the Professor of Anatomy.

(j) Moist and dry preparations of dissections, a large collection of frozen cross sections of the human body, showing the normal relations of the viscera, etc., will be found convenient for study.

#### ARCHITECTURAL MUSEUM.

The Architectural Department has been endowed by Sir Wm. Macdonald, the founder, with a very thorough equipment for practical purposes of instruction. In the Museum of the Engineering Building is included a large collection of casts both of architectural detail and ornament (illustrative of the historical development of the various styles) and of architectural and figure sculpture. The freehand drawing classes for architectural students, as also the classes of architectural drawing and design, are conducted in this portion of the building.

A special architectural department has been added to the Univer-

sity Library; text-books and other works have been added to the Faculty Library. A collection of photographs is placed in the architectural room for the use of students in the class of design, in addition to a select reference library of illustrated works. Diagrams and lantern slides are used in illustration of the historical courses; models and specimens of materials and fittings in those on Building Con-

struction, Sanitation, etc.

## ENGINEERING MUSEUM.

This Museum accupies the third storey of the Engineering Building, and amongst other apparatus, contains the Reuleaux collection of kinematic models, presented by Sir William Macdonald, and pronounced by Professor Reuleaux to be the finest and most complete collection in America.

## MUSEUM OF HYGIENE.

## DIRECTOR:-PROF. T. A. STARKEY.

The Museum has been established from the interest accruing through the endowment of the Chair of Hygiene by Lord Strathcona

and Mount Royal in 1893.

With a view to exhibiting not only specimens of the best and most approved types of appliances in each particular branch of Public Health, but also examples of types which are to be avoided on Hygienic Principles, the material in the Museum has been re-arranged. In order to facilitate study and reference, the specimens have been classified upon a decimal system under the following sections:--

I. Disinfection.-Including disinfection apparatus, disinfectants and

antiseptics.

2. Lighting and Heating.—This section includes types of all known methods of heating and ventilation.

3. Water.—Showing underground water and supplies drawn from it; methods of purification on large and small scales, including domestic filtration; exhibits of all the common modes of pollution of water su, plies.

4. Buildings.—Effects of ground moisture on dwellings; building materials of all kinds; and measures against dampness and foul air.

5. Soil.—Various kinds of soils; relation between soil and dampness; permeability of soils to gas and water; composition of soils.

6. Air.—Including ventilation, climate and meteorology, with ap-

paratus illustrative of each class.

7. Drainage and Refuse Disposal.—This section includes every description of sanitary appliance used in building, drainage, and ultimate disposal of refuse, both liquid and solid. The section also includes types of faulty methods.

8. Foodstuffs.—Adulterations and modes of transmission of disease.

o. Clothing.—Materials and their value for clothing.

10. Vital Statistics.—Administration, etc.

11. Bacteriology and Pathology relating to Public Health.—Including specimens and slides of all the common micro-organisms, pathogenic and non pathogenic; specimens of pathological conditions met with in meats, etc.

In addition to the regular Museum Exhibit there is a collection of over 1,000 lantern slides illustrative of phases of Hygiene. The slides have been so arranged as to be available for demonstrations as hand specimens. These slides as well as all the specimens in the Museum are card catalogued, and a projecting lantern is available for

their demonstration.

The following are some of the principal exhibits:—Set of Knight's diagrams and models; working models illustrating house-drainage, closets, etc., sewer air, movements of soil air; Doulton's models of drainage; damp-proof construction, absorption of moisture in building materials, ventilation appliances, combined heating and ventilation, automatic regulation of heating and ventilation; building materials; fire proofing; estimation of carbonic acid and moisture in the air; meteorological apparatus; water supply, water piping; water filtrations of public and domestic supplies; pollution of water supplies; ground water level; sewage and refuse disposal; sanitary fitting and plumbing; food supply; food adulteration; examination of milk supplies; disinfection; disinfectants.

A complete descriptive catalogue containing a large amount of condensed information with reference to the exhibits, has been published,

and may be obtained at the office of the Medical Registrar.

### PATHOLOGICAL MUSEUM.

PROF. J. G. ADAMI, DIRECTOR.

MAUDE E. ABBOTT, B.A., M.D., CURATOR.

M. JULES BAILLY, OSTEOLOGIST AND ARTICULATOR.

E. L. JUDAH, PRAEPARATOR.

Since the organization of the Medical Faculty the Pathological Museum has been one of its most charished objects. Some specimens still remain upon its shelves donated by the founders of the College (notably a unique case of Cor. Biatrinen Ttriloculare, reported by Dr. Andrew Holmes in 1823), and for the past fifty years the rich pathological material furnished by the Montreal General Hos-

pital has been collected here. Many specimens are also now yearly received from the Royal Victoria Hospital, and the Faculty is also indebted to many medical men throughout Canada and the United States for important contributions.

The Museum is especially rich in specimens of Aneurisms, and contains a singularly important collection of hearts affected with "Malignant Endocarditis." For these series the Faculty is mainly indebted to Prof. Osler, late of this University.

It contains also a very large collection of different forms of calculi presented by the late Prof. Fenwick.

The Medico-Legal Museum also contains many rare specimens collected by the late Prof. Wyatt Johnson.

On the suspension of work in the Faculty of Comparative Medicine, its fine museum was donated to the Pathological Museum by the Dean of that Faculty, Dr. Duncan McEachran.

During the past ten years, M. Bailly, osteologist and articulator (lately with Tramond of Paris), has been engaged in arranging and mounting the very large number of specimens from the dissecting room and other sources of disease and injuries of bones which have been accumulating for years. In this collection are to be found examples of fractures and dislocations of the spine, osteoporosis, congential dislocation of the hip, fracture of the astragalus, multiple exostoses, etc., etc.

Work is now being directed chiefly to the preparation of moist specimens, in which department great advances have been made. The natural colors of organs are preserved after the methods of Kaiserling and Jores, and are carefully mounted in square jars on glass frames in such a manner as may best preserve their natural relations and thus be of the most service to the student.

The Pathological Museum has lately undergone complete alteration. A new gallery has been erected around both the main rooms, which is reached by a spiral staircase in a small intermediate room in which is placed the Medico-Legal Collection. Two rooms have also been added at the rear, the Curator's Office and the Obstetrical and Gynæcological Museum. The extensive bone collection and the calculi are found in the first room on entering, while the front and largest room is reserved for the moist specimens. Water-color paintings of pathological conditions occupy swinging frames, or form a frieze at the ceiling, and large tables fitted with moveable shelving for demonstration purposes occupy the floor space. This suite of five rooms connects with one of the main lecture rooms, which is largely used for the teaching of gross pathology from museum specimens.

The Museum has recently been entirely reclassified according to the Dewey System of library classification, after a modification suggested and devised by the late Prof. Wyatt Johnston. This classification, which follows a definite anatomical and pathological order, is of much assistance in the systematic teaching for which the museum is now extensively used; for a special feature is now being made of the demonstration and teaching of gross pathology from large numbers of museum specimens grouped in series to show relation and different conditions, and graduations of diseased progresses. Representative specimens showing the various pathological conditions from each organ in turn are shown and lectured upon to students of the Fourth Year by the Professor of Pathology. These lectures are suplemented by a

series of daily demonstrations in the Museum, at which attendance is voluntary. At these demonstrations all the specimens of interest from a given organ are exhibited to successive groups of students. In the circulatory system, for instance, demonstrations on anomalies of the heart, on the pericardium, myocardium, endocardium, arteries and veins, are exhibited in rotation to the five groups into which the year is divided. As each system is finished its specimens are arranged in complete teaching series on tables and are placed "on exhibition" both for review purposes for the student and for the benefit of those members of the teaching staff who wish to inform themselves of what the museum contains. An annual exhibition of new specimens mounted during the year is also held.

In addition to this "Museum Forms" are issued on request to the students, upon which written exercises upon series of museum specimens may be made.

Museum specimens, returnable within 48 hours, are also sent out to lecture rooms and to the hospitals at the request of the clinicians for illustration purposes.

#### THE PETER REDPATH MUSEUM.

The Peter Redpath Museum contains large and valuable collections in Botany, Zoology, Mineralogy and Geology, arranged in such a manner as to facilitate the work in these departments. Students have access to this Museum, in connection with their attendance on the classes in Arts in the subjects above named, and also by tickets which can be obtained on application.

## 3. WORKSHOPS.

The Workshops, erected on the Thomas Workman Endowment,

have a total floor area of more than 25,000 square feet.

Equipment.—The Carpenter Shop and the Pattern Shop contain thirty-eight carpenters' and pattern-makers' benches complete with the necessary sets of hand tools, twenty-two wood-turning lathes with their turning tools, a large pattern-makers' lathe for faceplate work, one circular saw bench, a jig saw, a band saw, two wood trimmers, a surface planer, a thickness planer, a mortising machine, a saw-sharpener, and one universal wood-working machine.

The Smith Shop is provided with sixteen Sturtevant forges which are power-driven and are connected with an exhaust fan. There is a power hammer, and the necessary equipment of anvils, swage blocks, sets, flatteners and other tools. Provision is made for instruction in soldering and brazing, and for an elementary course in ornamental wrought iron work in connection with the architectural course.

The Foundry has benches, tools and apparatus for bench and floor moulding and core-making, and is able to accommodate twenty students. A gas-fired brass melting furnace, a cupola for melting iron, and the necessary core-ovens and core-benches give facilities for undertaking iron foundry work in green and dry sand, and for brass moulding. The shop is served by a hand travelling crane of one ton capacity.

The Machine Shop has twelve 18-inch engine lathes, one 18-in turret lathe fitted for stud and screw making, one 27-inch engine lathe, one 72-inch surfacing lathe, one brass-finishing lathe, one 36-inch vertical drilling machine with compound table, one universal milling machine with vertical milling attachment and dividing headstock, one planer capable of taking work up to 24" × 24" × 5ft., one 9-inch slotting machine, one 16-inch shaper, one universal grinding machine, centering machine, a cutter grinder, a tool grinder and a buffing and emery grinding machine. There are vise benches for eighteen students, with the necessary hand-tools, and a marking-off table. The tool-room contains a full equipment of drills, reamers, milling centers, and accessories, gauges callipers, and other measuring instruments.

All the machinery in the Workshops is driven electrically by motors taking power from the generating station in the Macdonald

Building.

# Royal Victoria College.

The institution of the Royal Victoria College, in September, 1899, was a direct continuation of the work begun in 1883, during the Principalship of the late Sir William Dawson, when Lord Strathcona and Mount Royal placed a sum at the disposal of the University of McGill, for the Endowment of a College and classes for women. For many years previously it had been hoped by those interested in the education of women in Montreal that the University would extend its benefits to women, but the means necessary for carrying out such an aim had not been available. The classes were organized in 1884 as a Special Course in the Faculty of Arts, held at McGill College, separate in the main from those for men, but under identical conditions. In some of the work of the third and fourth years, and in the Honour Courses, the classes were held jointly.

The ultimate aim of Lord Strathcona had been the foundation of a place of residence, and, with this object, he announced. his intention of building and endowing the Royal Victoria College. By the opening of this Institution the opportunity of residence and college life is given to women-students of McGill University, working in accordance with the system previously organized in the Special Course in Arts, but under greatly improved conditions. A share in the advantages of college life is offered also to the non-resident women-students of the University, who are henceforth also students of the Royal Victoria College. Additional elements have been added in the organization of a Musical Department, and in the institution of Resident Women Tutors. These additions are in accordance with the general aim of the College; viz., the higher education of women, and mainly to qualify them to take degrees in Arts (including Pure Science), and to provide them with instruction in those branches of a liberal education necessary thereto and in such other subjects as may from time to time be determined.

The College being a residential College for the womenstudents of McGill University, its students, whether undergraduates, conditional students, or partial, follow the courses in Arts and Pure Science offered by the University (see pages 72 to 79).

Lectures are given by the Professors and Lecturers of the University, either in the College or in the University buildings, and students attend the University laboratories for practical instruction. In addition to the instruction given in lectures and laboratory practice, the students of the Royal Victoria College are assisted in their studies by the Resident Tutors.

### THE COLLEGE BUILDING.

The College is situated on Sherbrooke Street at the head of Union Avenue, in close proximity to the University buildings and to the slopes of Mount Royal. The building is fire-proof, and much thought and artistic care have been given to the furnishing and decoration.

On the ground floor are the offices of the Administration, including the rooms of the Warden and Secretary, the Professors' common room, lecture rooms (English, French, German, Mathematics), students' common room and a spacious dining hall. On the first floor are other lecture rooms (Latin, Greek, Logic, and Philosophy), the library, reading room, and a handsome assembly hall. On the second and third floors are the rooms of the resident students. These are of varying size and plan. Each student has a separate bedroom, and, as a rule, one sitting-room is shared by the occupants of the two or three bedrooms immediately adjoining. The entire use of a sitting-room can be obtained, and there are some rooms which may be used as study-bedrooms. The rooms are completely furnished, and no article of furniture need be brought by the No part need be taken by the students in the care students. of their rooms.

In addition to the lawn at the back of the College, the students are entitled to use, subject to regulations, the grounds of McGill University, with its tennis-courts, skating-rink, etc.

A nucleus of a College Library has been formed with a set of books, comprising the stated books and others referred to in connection with the University curricula, the modern language course being especially well represented. There are

also works of general literature. The Library is a readingroom, and the books are not taken away. The students have access also to the University Lending Library.

Students of Music have the use of a large practising-room, and, at certain hours, of the piano in the common room, as

also of the Gymnasium piano.

The Gymnasium, fully equipped in accordance with modern requirements, is in the basement. In connection with the Gymnasium there are bath-rooms and dressing-rooms.

The health of the students is under the charge of a competent physician practising in Montreal, who may be con-

sulted free of charge.

Students of the Royal Victoria College, as students of McGill University, are entitled to the use of the University Library, containing about 100,000 volumes, and the Peter Redpath Museum, containing large collections in Mineralogy, Palæontology, Zoology, Botany, Archæology, and Ethnology, and to work in the physical, chemical, zoological, botanical and other laboratories. (For particulars of laboratories, etc., see pp. 256 et seqq.)

#### BOARD AND RESIDENCE.

Residence in the College buildings is open to undergraduates, conditioned students, or partial students, but the last are not received in residence unless they take courses of study approved by the Faculty of the College. The expense of board and residence ranges from \$290 to \$440, in addition to the sessional fees for tuition (see pp. 50 and 51), according to the room or rooms occupied by the students; for a majority of the rooms the expense of board and residence is \$290. These charges cover the University Session, 10th September—30th April, and the summer classes, May 1st—15th June. A deduction of \$50 is made in the case of students who go out of residence at the end of the University Session.

Applications for admission or further particulars should be addressed to the Warden, Royal Victoria College, Montreal.

## PHYSICAL TRAINING.

The Gymnasium is in the charge of an Instructor specially appointed for the purpose, whose assistance and services will be made available to students at such hours as may best suit

their convenience. Particular attention is devoted to the application of exercise in cases of physical weakness. All students undergo a physical examination on entering upon the gymnastic course, under the superintendence of Dr. F. W. Harvey, Medical Director of Physical Training. Fencing classes and teams of basket-ball are formed, and, when weather permits, these and other exercises are practised on the lawn, at the back of the College building. This ground is also provided with lawn-tennis courts. Students of the first year are required to take regular physical exercise in the Gymnasium amounting to two periods per week.

#### - EXHIBITIONS AND SCHOLARSHIPS.

For a statement of the Exhibitions and Scholarships open to women students of the University, see pp. 27 to 38.

In addition to these, and further to encourage residence within the College walls of students who might otherwise arrange to board in the city, the Warden and Faculty are empowered to make nominations in any of the four College years to not more than three additional Exhibitions of the value of \$100 each.

#### MUSIC.

Apart from the University Courses, instruction in Music is offered at the College, for which a separate fee is charged. The instruction includes the Pianoforte in all its branches (solo, ensemble playing, concertos, duos for two pianofortes); Singing (voice production, vocalization, sight-singing, eartests, solo and part singing); and Lectures on Theory (elements of music, harmony, counterpoint, and history of music). Attendance at certain of these Courses is expected of all students of music.

For information regarding courses, fees, etc., in the McGill Conservatorium of Music, under the direction of Mr. Charles A. E. Harriss as Director, and Miss Lichtenstein as Head of the Staff, see separate announcement.

For Time Tables of Lectures in Arts, see first part of Calendar.

# McGill Normal School.

The McGill Normal School is established for the purpose of training teachers for the Protestant population of the Province of Quebec. The studies in this school are carried on chiefly in English, but French is also taught.

#### GOVERNMENT OF THE SCHOOL.

The Corporation of McGill University is associated with the Superintendent of Public Instruction in the direction of the McGill Normal School, under the regulations of the Protestant Committee of the Council of Public Instruction, and it is authorized to appoint a standing committee consisting of five members, called the "Normal School Committee," which shall have the general supervision of the affairs of the Normal School. The following members of the Corporation of the University constitute the committee of the Normal School for the Session 1906-1907.

W. Peterson, LL.D., C.M.G., Principal of the University, Chairman.

CHARLES E. Moyse, B.A. LL.D., Dean of the Faculty of Arts.

J. R. Dougall, M.A.

Rev. E. I. Rexford, M.A., LL.D.

REV. JAMES BARCLAY, M.A., D.D.

McGill University.

Fellows of

J. A. NICHOLSON, M.A., Secretary.

#### Officers of Instruction.

## McGILL NORMAL SCHOOL.

Sampson Paul Robins, M.A., LL.D., D.C.L., Principal and Lecturer on Art of Teaching.

ABNER W. KNEELAND, M.A., B.C.L., Ordinary Professor of English Language and Literature.

MADAME SOPHIE CORNU, Ordinary Professor of French.

Mr. Henry F. Armstrong, Associate Professor of Drawing.

MISS LILIAN B. ROBINS, B.A., Assistant to the Principal and Instructor in Classics.

MR. W. H. SMITH, Instructor in Vocal Music.

Mr. John P. Stephen, Instructor in Elocution.

MISS CARRIE M. DERICK, M.A., Lecturer in Botany.

NEVIL N. EVANS, M.A.Sc., Lecturer in Chemistry.

J. A. WILLIAMS, M.D., Lecturer on Physiology and Hygiene.

H. T. BARNES, D.Sc., Lecturer on Physics.

Mr. James Walker, Instructor in Penmanship and Book-keeping.

MISS LOUISE DERICK, Instructor in Kindergarten Methods.

Mr. E. W. Arthy, Lecturer in the Theory of Kindergarten and Transition Work.

MISS JESSIE Y. CHISHOLM, Instructor in Kindergarten History and Principles.

MISS V. M. HOLMSTROM, Instructor in Calisthenics.

Mr. Carl Johansson, Instructor in Manual Training.

MISS JOSEPHINE T. Dow, Instructor in Cooking.

MISS M. J. CONNOR, Instructor in Sewing.

MISS MARY R. KNOWLTON, Principal's Secretary and Librarian.

#### Model schools of the McGill Normal School.

E Montgomery Campbell, B.A., Head Master of Boys' School.

MISS MARY I. PEEBLES, Head Mistress of Girls' School.

MISS SELINA F. SLOAN, Head Mistress of Primary School.

and a Staff of Twelve Assistants.

## ANNOUNCEMENT FOR THE SESSION 1906-1907.

This Institution is intended to give a thorough training to teachers, by instruction and training in the Normal School itself, and by practice in the Model Schools; and the arrangements are of such a character as to afford the greatest possible facilities to students from all parts of the province. The Protestant Central Board of Examiners for the Province of Quebec grants diplomas only to teachers-in-training of this Institution and to graduates of British or Canadian Universities.

The fifty-first session of this School will commence on the fourth of September, 1906, and close on the thirty-first of May, 1907. The students are graded as follows:—

I.—Elementary Class. — Studying for the Elementary Diploma.

2.—Advanced Elementary Class. — Studying for the Advanced Elementary Diploma.

3.—Kindergarten Class. — Studying for the Kindergarten Diploma.

4.—Model School Class.—Studying for the Model School

Diploma.

5.—Class in Pedagogy. — Preparing for the Academy Diploma.

Detailed information respecting the courses of the four grades first enumerated above may be obtained on application to the Principal of the School, at 32 Belmont St., Montreal.

## ACADEMY DIPLOMAS TO GRADUATES.

All holders of model school diplomas that have been granted by the McGill Normal School or that shall hereafter be granted by the Central Board of Examiners shall be entitled to receive Academy diplomas on graduating in Arts at some Canadian or other British university.

All graduates in Arts of Canadian or other British universities who have passed satisfactory examinations in Education and Practical Teaching under the control of the Universities or of the McGill Normal School, as approved by the Protestant Committee of the Council of Public Instruction, shall be entitled to receive Academy diplomas.

To meet the requirements of graduates and undergraduates in Arts, who, not having previously taken a Normal School course, desire to receive Academy diplomas, and until the Universities themselves undertake the work, provision has been made for the delivery of a course of lectures on pedagogy in the Normal School and for practice in teaching in the McGill Model School for fifty half days, open to graduates in Arts of any British or Canadian university, to undergraduates of the third year, and with the permission of the Faculty and

the concurrence of the Principal of the Normal School, to those of the fourth year. The hours assigned for these lectures are from 3 to 4 p.m. on each Tuesday and Friday on which lectures are given in the Faculty of Arts. An examination on this course of lectures is held annually on the 20th day of May, or on the school day next succeeding that date; the hours are from 10 a.m. to 12 noon.

Undergraduates will be permitted to teach the fifty half days referred to above, during the months of December and May of the third and fourth years of their college course. Graduates will be permitted to teach in the Model Schools at such times as may be agreed on with the Principal. Those who teach in the Model Schools are expected to prepare all lessons and discharge all duties assigned them with faithfulness. Failure to teach or to govern in the Model Schools, as indicated by the percentage of marks taken, no less than failure to pass the examination on the course of lectures, endangers the Academy diploma.

Each person desiring to take this course of study in the Normal School must make application for permission to enter, to the Secretary of the Central Board of Examiners, on the authorized form, remitting to him at the same time all necessary certificates of standing and character, and a fee of \$4.00. While in attendance on this course each person is subject to the regulations of the said school, and is under the supervision and control of its Principal.

## EXEMPTION FROM MATRICULATION EXAMINATION IN McGILL UNIVERSITY.

Holders of Model School diplomas of the McGill Normal School who are certified by the Principal of the Normal School to have taken 75 per cent. of the total marks at their final examinations, with not less than 50 per cent. of the marks in Mathematics, French, and Latin or Greek respectively, will be admitted without further examination to the first year in Arts of McGill University; but all such students must make good their standing at the Christmas examinations of the University.

## BURSARIES FOR GRADUATES OF THE NORMAL SCHOOL.

Three bursaries, of the value of \$60.00 each, are offered annually in the Faculty of Arts to the three teachers-in-training of the McGill Normal School (1) who have satisfied the requirements for entrance to this Faculty, as above specified, and (2) who, of all those applying for these bursaries, stand highest in their final examinations.

## Graduates.

SESSION 1905-1906.

## FACULTY OF ARTS.

## PASSED FOR THE DEGREE OF B.A.

IN HONOURS.

(In Alphabetical Order.)

First Rank.—Cousins, George V.
MacLeod, Alex. R.
McTaggart, Donald E.
Naylor, R. Kenneth.
Peterson, William G.
Ryan, Esther L.
Rogers, David B.

SECOND RANK.—Barclay, Gregor.

Drew, John McO.

Gibb, Robertson W.

Kirsch, Simon.

Rorke, Mabele.

Shaw, Herbert T.

Vineberg, Solomon.

#### ORDINARY B.A.

(In order of merit. Students of equal standing are bracketed together.)

CLASS I.—DeBeck, E. K.
Smith, A. N.
Housser, G. E.
CLASS II.—Eckhardt, J.
Lyman, S.
{ Carr, W. L.
{ Clarke, B. M.
Phelps, M. G.
Payne, C. H.
McQueen, K. H.
Nicholson, J. C.

Fraser, M.
CLASS III.—Fraser, A. B.
Braidwood, H.
Mundie, G. S.
Mowatt, E. R.
Newman, H.

Gillmor, B. Stanton, R. G. Flanders, J. A. Hendry, J. A. Scott, C. H. Marcuse, O. Smith, C. A. Edwards, W. Kimber, V. C. Aegrotat.—Crocker, S. J.

DOUBLE COURSE STUDENT WHO OBTAINED THE DEGREE OF B.A. Perry, K. M.

PASSED FOR THE DEGREE OF B.SC. (IN ARTS).

CLASS I.—Lewis, D. S. Sharpe, F. E. Gates, R. R.

B.A., AD EUNDEM.

Baillie, Samuel A. Cox, Katherine A. Lloyd, Stewart J. Pelletier, Alexis D.

B.SC. (ARTS), AD EUNDEM.

Boehner, Reginald S.

ADMITTED TO THE DEGREE OF M.A., IN COURSE.

Brown, Rev. W. G. Chodat, H. Cox, K. A. Davidson, M. B. Day, Rev. F. J. Henry, Edna. Mingie, G. W. Smith, Esther.

ADMITTED TO THE DEGREE OF M.SC. (ARTS), IN COURSE.

Boehner, R. S., B.Sc. Lloyd, S. J., B.A.

M.A. AD EUNDEM.

Huestis, Rev. Charles H.

ADMITTED TO THE DEGREE OF D.SC., IN COURSE,

McClung, R. K.

ADMITTED TO THE DEGREE OF LL.D., HONORIS CAUSA

Barciay, Rev. James, D.D. Fielding, Hon. William Stevens.

## FACULTY OF APPLIED SCIENCE.

PASSED FOR THE DEGREE OF BACHELOR OF ARCHITECTURE.

Blackader, Gordon H., Montreal, Que.

PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE.

(In order of Merit.)

ARCHITECTURAL ENGINEERING.

Anglin, J. Penrose, Montreal, Que.

CHEMISTRY.

Robertson, Arthur Frederick, Montreal, Que. Davidson, Thomas Reginald, Montreal, Que. Harvie, Robert, Westmount, Que.

CIVIL ENGINEERING.

McLachlan, D. William, Lochaber Bay, Que.
Clawson, Ernest Edward, St. John, N.B.
Macnab, John Joseph, Elsinore, Ont.
Piers, Edward Otis Temple, Wolfville, N.S.
McCuaig, George Eric, Montreal, Que.
Brunner, Godfrey Hugh, Huyton, Liverpool, England,
Anderson, Frederick William, Ottawa, Ont.
Pedley, Norman Field, Montreal, Que.
Black, Thompson Trueman, Dorchester, N.B.
McConkey, Thomas Clarkson, Guelph, Ont.
Hadley, Henry, Montreal, Que.
McIntosh, Robert Foster, Newcastle, Ont.
Newton, Stephen Gibbon, Sherbrooke, Que.
Dawe, Robert George, St. John's, Nfld.
Vansittart, George Edward, Toronto, Ont.
Gordon, Maitland Lockhart, Toronto, Ont.

#### ELECTRICAL ENGINEERING.

Gray, Alexander Miller, Edinburgh, Scotland. McLeish, Ian, London, England. Forbes, John McNeill, Bonavista, Nfld. Brennan, George Eric, Ottawa, Ont. Christic, Clarence Victor, Halifax, N.S. Harvie, James, Westmount, Que. Hibbard, Melville Louis, Farnham, Que. Durland, Royden Keith, Yarmouth, N.S. Durkee, Pearl Whitfield, Digby, N.S. Mudge, Reginald, Montreal, Que. Barrington, Frederick Herbert, Waterloo, Que. Purdy, James deLancy, Springhill, N.S. Gurd, Andrew Douglas, Montreal, Que. Ross, Daniel H., London, Ont.

Thomas, Herbert Percival, ægrotat.

#### MECHANICAL ENGINEERING.

Jackson, Mannsell Bowers, Toronto, Ont.
Black, Douglas Edward, Montreal, Que.
Kirkpatrick, Everett Charles, Montreal West, Que.
Loudon, Andrew Charles, Ottawa, Ont.
Turley, Edward James, Frankford, Ont.
Presner, Joseph, Montreal, Que.
MacCarthy, Arthur Kempston, Ottawa, Ont.
Taylor, Allan Harvey, Ottawa, Ont.
Gibbs, Harold Egerton, Port Arthur, Ont.
Pinch, Harry Harstone, Owen Sound, Ont.

#### MINING ENGINEERING.

Wickware, Francis Graham, Eastons Corners, Ont.
Howell, Edgar Newlands, Westmount, Que.
Livingston, Douglas Clermont, Corfield, B.C.
Cole, Lionel Heber, Montreal, Que.
Winter, Elliott Edward, Demerara, British Guiana, West IndieCole, George Edwards, Phænix, B.C.
Burnett, Archibald, Montreal, Que.
McMcekin, Albert, Bright, Ont.
Cowen, Reginald Percival, Cumberland, England.
Ritchie, Alan Bruce, Halifax, N.S.
Young, Horace Greeley, Osnabruck, Ont.

## BACHELORS OF SCIENCE, AD EUNDUM.

Ferris, Charles E., Tennessee, U.S.A. Harrington, John Lyle, B.A., B.Sc., Kansas, U.S.A.

#### ADMITTED TO THE DEGREE OF MASTER OF SCIENCE.

Boyle, Robert William, B.Sc., Carbonear, Nfld. Cole. George Percy, St. Louis, U.S.A. Dutcher, Howard Ketchum, B.Sc., Charlottetown, P.E.I. Forbes, Harry Leo, B.Sc., Waverley, Halifax Co., N.S. Spencer, Arthur Gordon, B.Sc., Montreal, Que.

## FACULTY OF LAW

#### PASSED FOR THE DEGREE OF B.C.L.

(In order of merit.)
Conture, G. C. P., B.A.
Shallow, T. J., B.A.
Sperber, M. M.
Legault, J. L. L.
Shepherd, S. J.
Stackhouse, R. F.
Calder, R. L., B.A.
Tanner, A. H.
Mathieu, A. P., B.A.
Johnson, W. S., B.A.
(also fassed)
McKenna, F. E., B.A.

THE NAMES OF THE GRADUATES IN MEDICINE DILL IN THE MEDICAL CALENDAR.

# Scholarships and Exhibitions.

## SESSION 1905-1906.

## FACULTY OF ARTS.

## I. Third Year Scholarships. (Tenable for two years).

1. Third Tear box		
NAMES OF SCHOLARS.	Subjects of Examination.	Annual Value.
MacKenzie, J. M Swiit, S. C. Eaton, M. J. Gould, E. M. L. Couture, Ida. King, L. M.	Biology and Psychology English and German Euglish and Latin, "  French and German	\$150.00 150,00 75.00 Reached Scholar- ship Standard. 100.00 100.00
Vincent, Irving O	Latin and Greek	150.00
II Third Year Bu	rsaries. (Tenable for or	year).
*Bates, F. M* *James, A. E	Mathematics and Physics	\$ 75.00 75.00 75.00 75.00
III. Second Year I	Exhibitions. (Tenable for	one year).
Names of Exhibitioners.	SUBJECTS OF EXAMINATION.	Annual Value.
McClaghan, Ellen	German, English and Physics Mathematics, English and French Latin, Greek and English Latin, Greek and English Latin, Mathematics and Physics.	\$150.00 150.00 75.00 75.00 150.00
IV. First Year Ex	hibitions. (Tenable for o	one year).
Names of E	XHIBITIONERS.	Annual Value
Estabracks, Florence Cecelia, St. Jo Hatcher, Alfred George, Bonavista, Dennis in, Lawrence George, Westn Cockiell Kathleen, Victoria, B.C Cushing Charles, Montreal, Que Townsend Charles, Westmount, Que MicDonald, Jessie, Montreal, Que Murphy, A. Winnifred, Montreal, Sproule, Stanley Macquana, Montrea	Newfoundland	150.00 120.00 125.00 125.00 100.00
V. First Year B	ursaries (Tenable for one y	rear).
Bruneau, I. Edgar, Montreal, Que. Elliott. Edith E., Westmount, Que. Vipond, Florence M., Hudson, Que		\$75.00 75.00 60.00

<sup>\*</sup> To be continued if work of the Third Year proves satisfactory. † Conditioned on residence in the Royal Victoria College.

## FACULTY OF APPLIED SCIENCE.

## Exhibitions and Prizes,

TO STUDENTS ENTERING THE FOURTH YEAR

Christie, C. V., British Association Exhibition

TO STUDENTS ENTERING THE THIRD YEAR

Lamb, H. M., First Mathematical Prize.
Gamble, C. W., Second "
Bell, G. E., First McCarthy Prize for Surveying and Fieldwork.
Gamble, C. W., Second "

TO STUDENTS ENTERING THE SECOND YEAR

Herbert, W. H., Scott Exhibition. Guillet, G. L., First Scott Prize.

## Register of Students.

SESSION 1905-1906.

## FACULTY OF ARTS.

FIRST YEAR.

## (McGill College.)

Name. Home Address. Where Last Educated. *Argue, Robert FStittsville, Ont
*Ash, Ernie CTodmorden, OntOntario School of Practi-
†Bates, Roy WLanark, OntLanark High School. Bole, Thomas HPembroke, Ont
*Boyd, Gardiner MBobcaygeon, Ont. Ontario School of Practi- cal Science.
*Boyd, Samuel WMetcalfe, OntBrockville C. I.
Brosseau, Louis PSt. Johns, OueOttawa Univ., Ottawa,
*Brownlee, ErnestNorth Gower, Ont. Kemptville H. S. Bruneau, I. EdgarMontreal, QueMontreal H. S.
Brunet, Gilbert ARoxton Falls, Que. Montreal Dioces. College.
*Budd, Alfred W London, Ont Ottawa Coll. Inst.
†Canegata, David CChristiansted, D.W.I.Grammar Sch., Antigua.
Carey, Wm. V Hamilton, Ont. Trinity Coll. School, Pt. Hope Cheesbrough, Hilton S. Westmount, Que Montreal H. S.
*Chrysler, Philip HOttawa, OntAshbury Coll., Ottawa. Clouston, Howard R Huntingdon, QueHuntingdon Academy.
†Corbett, Edward ARockburn, OueHuntingdon Academy.
†Cormack, John GNorth Bay, OntNorth Bay H. S. Cushing, CharlesMontreal, QueMontreal H. S.
*Danby, Frederick W. Richmond, OntKemptville H. S.
*Davis, Wm. ThosOttawa, OntPrivate Tuition.  Daw, Herbert BHamilton, OntTrinity Coll. Sch., Pt. Hope
Dennison, Lawrence G. Westmount, Que Montreal H. S. Drummond, Guy M. Montreal, Que St. John's Sch., Montreal.
*Dupuis, N. ArmandMontreal, QueMount St. Louis Inst, Montreal.
*Dustin, George WGananoque, Ont
†Emo, William Montreal, Que Montreal Dioces. College. Pisher, Roswell E Montreal, Que Montreal H. S.
Fleet, Chas A. R Montreal, Que Crichton Sch., Montreal. Gardiner, Egbert London, Ont London Coll. Inst.
Geggie, Harold J. G Beauport, Que Quebec H. S., Que.
†Gillmor. Daniel P Westmount, Que. Abingdon Sch., Montreal.

<sup>\*</sup> Partial Students.

<sup>†</sup> Conditioned Students.

9
NAME. HOME ADDRESS. WHERE LAST EDUCATED.
Gladman, Vietor LLindsay, OntLindsay Cell. Inst.
Gordon, Wm. OOttawa, OntOttawa Coll. Inst.
Gordon, Walter HMontreal, Que
Hale, Charles A Granby, Que Granby Academy.
†Hanson, Charles S, Montreal, Que Abingdon Sch., Montreal.
*Harris, William H Wardsville, Ont
Harvey, Charles HMontreal, QueMontreal H. S.
Hatcher, Albert G Bonavista, Nfld Meth. Coll., St. Johns, N'd.
Hawkins, Stuart S Quebec, Que Quebec H. S.
*Head, Leslie HRapid City, Man
Hébert, Albert JShawinigan Falls, Que. Stanstead College.
*Hilborn, Percy RBerlin, OntBerlin H. S.
Hindley, George JOustic, OntFergus H. S.
Hindley, Wilbur W. Oustic. Ont Guelph Coll. Inst.
Howitt, CharlesGuelph, OntGuelph Coll. Inst.
†Keith, Claude H New Glasgow, N.S. New Glasgow H. S.
†Keith, Claude H New Glasgow, N.S. New Glasgow H. S. *Langslow, Harry R Rochester, N.Y Riverview Military Acad
Poughkeepsie, N.Y.
*Leggett, Charles WPortland, OntBrockville C. I.
Le Mesurier, Charles S., Montreal, Que Montreal H. S.
Lyman, John G Montreal, Que Hotchkiss School, Lake-
ville, Ct.
Macdonald, Alex. B. Athelstan, Que Huntingdon Academy.
McCibling Day H. Montreal Over Voltage of Parties Many
McGibbon, Roy H Montreal, Que. Volkmann Sch., Boston, Mass.
Mackenzie, James AKirk Hill, Ont
*McLennan, Farquhar. Inverness, Scotl'd Central Public School, In-
verness, Scotland.
MeLennan, HughSydney, C.BCrichton Sch., Montreal.
McMahon, Edward G. Ottawa, OntOttawa Collegiate Inst.
McMurtry, Alex. OMontreal, QueCrichton School, Montreal
*Marsh, Fred WQuebec, QueWoodstock C. I.
Mavety, John LMontreal, QueKemptville H. S.
*Miller, Jay A Sutton, Que
*Miller, Wilbert N. Soult Ste. Marie, Ont.Sault Ste. Marie II. S.
*Nicholson, DonaldLucknow, Ont
Nicholson, Wm. G Mille Isles, Que Montreal Dioces. College.
Oliver, Stuart EQuebec, QueQuebec II. S.
Packard, Mortimer L Westmount, Que Montreal H. S.
Pedley, Hugh SMontreal, QueMontreal H. S.
†Pelletier, Herman E., Fulford, Que Montreal Dioces. College.
*Perodeau, CharlesMontreal, QueLoyola Coll, Montreal.
†Peron, Silas E Mont Johnson, Que. Feller Inst., Gr. Ligne, Q.
*Pitt, Edward A Trinidad, B.W.I.
Plimsoll, Arthur R. W. Montreal, Que St. John's Sch., Montreal.
Pringle, John A Athelstan, Que, Huntingdon Ac demy.
*Raynes, Walter LSt. John, N.BSt. John Gra vm r Scholl
*Read, Reginald A, Montbrook, Fla, Ridley Coll, St. Catharines
Rennolds in, David B., Westmount, Que. St. John's Sala, Montreal.
Richardson, John A., Montreal, Que Montreal II. S.
*(2 Saint, Jabel R Bonavista, Nfld Univ of Mt. Alli on, Sack-
ville, N.B.
* Partial Students

<sup>\*</sup> Partial Students.
† Conditioned Students.
| Double Course.
The figure (2). (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found,

	Name. Home Address. Where Last Educated.  *Scott, Oswald HOshawa, OntOshawa H. S. Shannon, William L. Vancouver, B.CVancouver College.  *Simpson, Samuel THarbour Grace, Nfld. Grammar Sch., Harbour Grace, Nfld.
r.	†Sladen, Algernon R. L.Dover, England . Private Tuition. Smith, Chas. H. VKnowlton, QueStanstead College. Sproule, Stanley MMontreal, QueMontreal H. S. Stanton, Frank HMontreal, QueFeller Inst., Grande Ligne, Q. †Stevens, Gardner GStanstead, QueStanstead College.
	†Stevenson, J. Allan . Montreal, Que Private Tuition. *Stuart, Alex. G Buckingham, Que. Upp. Canada Coll., Toronto Surprenant, Thos. S.H.Lacolle, Que Ormstown Academy. Sutherland, Francis C., Richmond, Que. St. Francis Coll. Gram. Sch. Thorne, Oliver Montreal, Que Montreal Dioces. College. Townsend, Chas. L Montreal, Que Crichton Sch., Montreal.
	Tremblay, Joseph A. Jonquières, QueFeller Inst., Grande Ligne. *(2)Turnbull, Vicars St. L.Montreal, QueTrin. Coll. Sch., Pt. Hope. Varley, Stephen Harwich, England. Montreal Dioces. College. †Vincent, Robert PQuebec, QueQuebec H. S. Waterston, DouglasWestmount, Que Belleville High School.
	*Webber, James PShip Harbour Lake, N.S Private Tuition. †Williams, Alfred GBuckingham, Que. Ashbury Coll., Ottawa. Wilson, Thos. ELangley Prairie, B.C., Vancouver H. S. *Youtz, Waldo EMontreal, Que
	(Royal Victoria College.)
	Baillie, Ida F Westmount, Que Westmount Academy.

Baillie, Ida FWestmount, QueWestmount Academy.
Baylis, Dora C Montreal, QueMontreal H. S. for Girls.
*Beadie, LeonoraLachine Locks, Que
*Bryant, Leota NWestmount, QueWestmount Academy.
†Cains, Kathleen SMontreal, QueTrafalgar Inst., Montreal.
*Carter, Mabel JMontreal, QueMiss Symmers and Miss
Smith's Sch., Montreal.
Cockrell, Kathleen MVictoria, B.CVictoria College.
*Collard, RoseMontreal, Que
*Cream, Jessie M Montreal, Que Trafalgar Inst., Montreal.
*Dawson, Edyth MLachine Locks, Que
Dennis, Agnes M Halifax, N.S Halifax County Academy.
†Dettmers, VivianMontreal, QueMontreal H. S.
Dick, Edith M Montreal, Que Montreal H. S.
*(2)Dodge, Lucie B., St. Anne de Bellevue, Que. All Saints' Sch., Sioux
Falls, S.D.
*Donoghue, MollieMontreal, QueMiss Symmers and Miss
Smith's School.
Elliott, Edith E Westmount, Que. Montreal H. S.
*Elliott, FlorenceMontreal, QueStanstead College.
Estabrooks, Florence C. St. John West, N.B. St. John H. S.
*Gordon, Hilda I Montreal, Que Trafalgar Inst., Montreal.
Gray, Annie R. (B. Sc. course). Pembroke, Ont

<sup>\*</sup> Partial Students.
† Conditioned Students.
The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found.

NAME. HOME ADDRESS. WHERE LAST EDUCATED. *Hadley, Edna A Montreal, Que Montreal H. S.
*Hague, Margery F. M. Montreal, Que Havergal Coll., Toronto.
*Hall, Dasie CKnowlton, QueKnowlton Acad.  *(3) Ham, Charlotte W. Boston, MassBoston, Mass., U.S.A.
*Harte, Enid M Montreal, Que Montreal H. S.
*Harvie, Mabel E Westmount, Que Westmount Academy. *Henderson, Ida M Montreal, Que Private Tuition.
Henry, Margaret P. M., Tamworth, Ont. Coll. Inst., Orillia. Holland, Clara J Park Head, Ont. Coll. Inst., Owen Sound.
*Jackson, Isabella GMontreal, QueMontreal H. S.
*Kerry, Esther W Montreal, Que Miss Symmers and Miss Smith's School.
†Lawson, Elsie OSt. Stephen, N.B. High Sch., St. Stephen, N.B.
*Lech, Alice H Westmount, Que. Westmount Academy. *Lefebyre, Eugenie Montreal, Que Miss Bartley's Sch., Montreal
*Leger, EnidMontreal, QueMontreal H. S. *Lilly, Edythe EMontreal, QueMiss Symmers and Miss
Smith's Sch., Montreal.
McDonald, Jessie Montreal, Que Trafalgar Inst., Montreal. McEwen, Helen F Carleton Place, O.Carleton Place H. S.
*McKeown, Amy F Montreal, Que
†Macleod, Donalda E., Lucknow, Ont, Montreal H. S. Massé, Alice EGrande Ligne, Q., Feller Inst., Grande Ligne.
†Miller, Alice B. C., Temosachie, Chihuahua, Mexico. Erasmus Hall High Sch., Brooklyn, N.Y.
†Miller, Margaret I Frankford, Ont Trafalgar Inst., Montreal.
Mitchell, Ada LMontreal, QueMontreal H. S. Munn, Eva JMontreal, QueMontreal H. S.
Murphy, A. WinnifredMontreal, QueMontreal H. S.
Norris, Ruby A Westmount, Que. Montreal H. S. *Palit, Muriel F London, Eng Private Tuition.
Schafheitlin, Gertrud. Montreal, Que Montreal H. S. Slattery, Annie Port Morien, C.B. Sydney Academy, C.B.
*(3)(4)Smith, Ella L., B.A., St. John, N.B
Tanner, Lea E Joliette, Que French-American Coll., Springfield, Mass.
*Taplin, Jessie EAthens, OntAthens H. S.
*Taylor, Gladys HWestmount, QueMontreal H. S. Telfer, Vera MMontreal, QueWestmount Academy.
Trenholme, Katherine T. Westmount, Que. Trafalgar Ins., Montreal. Turnbull, Laura CMontreal, Que
Vipond, Florence M., Hudson, Que, McGill Normal Sch., Mont'l.
*Weir, Muriel PMontreal, QuePrivate Tuition. Willis, F. DorothyPort Hope, Ont Harmon School, Ottawa.
*Wilson, A. Muriel, B.A. Montreal, Que
†Wilson, Florence MBuckingham, QStanstead College. *Younger, Lilian FMontreal, QueMontreal H. S.

<sup>\*</sup> Partial Student.

<sup>†</sup> Conditioned Student.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found.

## SECOND YEAR.

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(412	cGill	Colle	26.1

Maria Contege.)		
NAME.	Home Address.	
Auchinleck, Gilbert G	St. John's, Antigua, B. W. I.	
Ayer, Kenneth R	Montreal, Que.	
Chandler, E. F.	Montreal, Que.	
Chandler, E. F. Creswell, Harris J.	. Lachute, Que.	
*Dawson, Ernest E	Stonefield, Oue.	
* (3) Duncan, James S	Mount Forest Ont	
Elliott, Robert	East Clifton, Que	
Feiczewicz, Louis	Onebec One	
Fineberg, Nathaniel S.	Montreal One	
*Gale, William H	Ormstown Oue	
Gillis, Norman R	Hostovillo D.F. I	
Greenshields F. I. Moress	Martisville, P.E.I.	
Greenshields, E. J. Moray	. Montreal, Que.	
*Hancock, Thomas	. I renholme, Que.	
Hastings, Wm. Roy	. Montreal, Que.	
Hawkins, Frank E	. Quebec, Que.	
‡Holden, Herbert L. S	. Montreal, Que.	
Isnerwood, Percy	Southport, England.	
Kingman, Abner	Montreal, Que.	
Lindsay, Sydenham B	. Montreal, Oue.	
Logan, Henry T	. Eburne, B.C.	
Logan, Henry T.  McBurney, Albert.  McDowgell War B.	. Sawverville, Oue.	
MacDougall, Wm. R	. Tatehurst. Que.	
McGougan, Alex. G	Glencoe, Ont.	
*Mackay, Joseph A	Woodstock Ont	
Maclean, Herbert B.	Pictou N S	
‡McQueen, George R.	Vancouver R C	
Paterson, Edward R	Montreal Oue	
Patrick, Frank A	Montreal Öve	
Penny, Arthur G	Montreel Oue	
Ramsay, George A. S.	Ouches Ouc	
Rice Emery I	Nor Davidson Ont	
Rice, Emery L Shanks, Walter R. L.	Titobham Man II C	
Show Albert N	Triciburg, Mass., U.S.A.	
Shaw, Albert N Simpson, Alan C	. Westmount, Que.	
Simpson, James C	. Montreal, Que.	
Simpson, James C.	Montreal, Que.	
Steedman, Wm. F. Stewart, Robert C.	. Montreal, Que.	
Stewart, Robert C	. Quebec, Que.	
Stockwell, Raiph F	Danville, Que.	
Timberlake, Ralph M	. Montreal South, Que.	
Tyndale, Orville S	. Montreal, Que.	
Waterston, Edward J	. Westmount, Que.	
*Wright, James V	. Montreal, Que.	
(Paval Victoria Callega)		
(Royal Victoria College.)		
the state of the s		

*Bignell, Leila F. S	. Montreal, Que.
Bouchard, Theodora C	. Montreal, Que.
Boyle, Gertrude M	. Westmount, Que.

<sup>\*</sup>Partial Student.

‡Conditioned Undergraduate.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found.

NAME.	HOME ADDRESS.
*Creelman, Marion D	Montreal, Que.
Dolbel, Amy A	Westmount, Que.
*Fleet, Isabella R	Montreal, Que.
*Hibbard, Marion E	Farnham, Que.
* (3) Levinson, Myrtie V	Montreal, Que.
McClughan, Ellen	Langley, B.C.
Maediarmid, Katie	Montreal, Que.
Mackeen, Anna M	Glace Bay, C.B.
*McLeod, Annie	
Macnaughton, Ariel M	
Plaisted, Gertrude M	Dunham, Que.
Ross, Lilia I	Dundas, Ont.
Sauvalle, Germaine H	Montreal, Que.
Smillie, E. Arma	Westmount, Que.
Smith, Annie	Montreal, Que.
* (3) Thompson, Eileen, B	Montreal, Que.
Wisdom, Bessie B	St. John, N.B.
Younger, Marjorie D	Montreal, Que.

## THIRD YEAR.

## (McGill College.)

.Aubrey, Que.
Ottawa South, Ont.
.Covehead, P.E.I.
. Montreal, Que.
Montreal, Que.
St. Hyacinthe, Que.
. Montreal, Que.
St. John, N.B.
Dewittville, Que.
. Paisley, Ont.
North Lancaster, Out.
. Toledo, Ohio.
Montreal, Que.
. Caledon East, Ont.
. Huntingdon, Que.
Montreal, Que.
. Montreal, Que.
. Vancouver, B.C.
South Quebec, Que.
Montreal, Que.
. Montreal, Que.
. Montreal, Que.
. Montreal, Que.
Vernon River Bridge, P. E. I.
. Montreal, Que.
. Aylwin, Que.
. Huntingdon, Que.

<sup>\*</sup> Partial Student.

| Double Course.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found.

NT	II A
NAME.	Home Address.
MacDougall, E. Stuart	. Westmount, Que.
Mackenzie, John M	. Hartsville, P.E.I.
Macmillan, William	. Montague, P.E.I.
Meldrum, Herbert T	Hun, Que.
*Morgan, W. Burton	. Hartland, N.B.
‡Parker, David W	Bediord, Que.
Parsons, Howard G	. Montreal, Que.
Penny, E. Goff T	. Montreal, Que.
‡Pierce, Ira W	. London, Ont.
Price, Thomas E	. Vancouver, B.C.
Price, Thomas E.      Rider, Ezra B.      Riley, Charles E.	Fitch Bay, Que.
Riley, Charles E	. Montreal, Que.
*Sawers, F. J., M.A	. Peterborough, Ont.
Silver, Samuel S	. Montreal, Que.
‡Stafford, F. Montague A	. Montreal, Que.
Swift, Sherman C	. Ridgway, Pa.
Vincent, Irving O	.St. Armand Centre, Que.
Wales, H. Osgood	. Robinson, Que.
Walker, Peter A	. Maisonneuve, Que.
Wilson, George T	. Vancouver, B.C.
Wood, Harold W	.St. Johns, Que.
(Royal Victoria	_
Armstrong, Louise F	. Montreal, Que.
Baylis, Inez M	. Montreal, Que.
*Bayne, Olive P	. Montreal, Que.
*Buckley, Margretta M	. Montreal, Que.
Cheesbrough, Charlotte M	. Westmount, Que.
Coates, Evelyn	.Amherst, N.S.
*Coristine, Mary S	. Montreal, Que.
Couture, Louise I	. Montreal, Que.
Crawford, Emily C	. Montreal, Que.
*Dandurand, G	. Montreal, Que.
Eaton, Mary J	. Montreal, Que.
Hayden, Amy J	Montreal, Que.
*Hill, Anna K	. DeLorimier, Que.
Huxtable, Maggie	. Montreal, Que.
lames, A. Ethel	. Montreal, Que.
King, Lucile M	. Montreal, Que.
Kvdd. Helen M	. Montreal, Que.
Laverock, Lily J	. Vancouver, B.C.
Macaulay, Esther E	. Westmount, Que.
Macaulay, Gertrude F	. Westmount, Que.
MacOueen, Bessie	. New Glasgow, N.S.
*Marcuse, Bella, M. Sc	. Westmount, Que.
Masson, Marian	.Ottawa, Ont.
†Massy, Muriel A	.Summerside, P. E. I.
*Michaels, Rosebud F., B.A	. Montreal, Que.
Stanton, Mary C	. Montreal, Que.
Stanton, Mary C*Sutherland, Alice D	. Montreal, Que.
Trench, Nora C	. Montreal, Que.
Williams, Clara L	
Wisdom, Jennie B	St. John, N.B.
, , , , , , , , , , , , , , , , , , , ,	5

<sup>\*</sup> Partial Student.

‡ Conditioned Undergraduate.

‡ Double Course.

# FOURTH YEAR.

# (McGill College.)

Name.	Home Address.
Barclay, Gregor	. Montreal, Oue.
Carr, Wm. L	. Trout River, Que.
Cousins, George V	. Westmount, Que.
MCrocker, Stanley J	.St. Thomas, Ont.
DeBeck, Edwin K	. Alert Bay, B.C.
Downey, Jas. J. C	. Brockville, Ont.
Drew, John McO	. Beech Ridge, Que.
Edwards, William	.Cookshire, Que.
Flanders, John A	, Rock Island, Que.
Gates, Reginald R. (M. A.)	. Middleton, N.S.
Gibb, Robertson, W	. Westmount, Que.
Hendry, Andrew W	. Liverpool, N.S.
Housser, George E	. Portage la Prairie, Man.
Kirsch, Simon	Montreal, Que.
Lewis, David S	. Lachine, Que.
Lyman, C. Sydney	Montreal, Que.
MacLeod, Alex. R	Uigg, P.E.I.
McTaggart, Donald E	. Vancouver, B.C.
Marcuse, Otto. Mundie, Gordon S.	Westmount, Que.
Mundie, Gordon S	Westmount, Que.
Naylor, R. Kenneth	Shawville, Que.
Newman, Harry	
Nicholson, John C	Lucknow, Ont.
Payne, Chester H	. Ottawa, Ont.
Pease, E. Raymond	Montreal, Que.
Perry, Kenneth M	Regma, Sask.
Peterson, William G	Montreal, Que.
Rogers, David B	Wattord, Ont.
Scott, C. Hope	Montreal, Que.
Shaw, Herbert T	Montreal, Que.
Smith, Arthur N	Vancouver, B.C.
Smith, Charles A	Maxatawny, Pa.
Vineberg, Solomon	Sherbrooke, Que.
(Royal Victori	a College.)
ALTO XXIII I	11 0
*Baynes, Hilda	Montreal, Que.
Braidwood, Helen	Westmount, Que.
Clark, Birdena M	Montreal, Que.
Eckhardt, Jessie E	Kidgeville, Ont.
Fraser, Amy B	Montreal, Que.
Fraser, Mabel G	Montreal, Que.
Gillmor, Blanche C	Westmount, Que.
Kimber, Victoria C	
McQueen, Kate H	Vanteed Oug
Phelps, Mary G	Lacturan Oue
Rorke, Mabele L.	
Ryan, Esther L	
Sharp, Florence E	Southfield Jamaica R W I
Stanton, R. Gertrude	Montreal One
*Williams, Ethel S	
THRUINS, DURCE O	The state of the s

<sup>\*</sup> Partial Student.

| Double Course.

### GRADUATE STUDENTS.

Henry, Alice	O. E.,	B.A	 	. Tamwor	th, Ont.
.Hindley, Jol	ın G., İ	B.A	 	. Fergus,	Ont.

## SPECIAL STUDENTS' (Research).

Hahn, Otto, Ph.	D	Frankfurt	(Main), Germany.
Levin, Dr. M		Gottingen,	Germany.

# PARTIAL STUDENTS TAKING SPECIAL COURSES IN ARTS FOR TEACHERS.

Archibald, Henry F. Baillie, Jean F. Bennett, Margaret E. Bouchet, Eugenie Bremner, Jennie M. Brodie, Margaret, B. A. Cameron, Margaret B. Campbell, Margaret H. Cousins, Florence A. Dawson, Claire Delbitt, Abbie S. Dickson, Charlotte L. Douglas, Mattie L. Everett, Emily E. Ferguson, Isobel Ferguson, Jennie A. Francis, Sara Grant, Isabella Grant, Maye Greig, Nettie T. Halpenny, W.T. Hudson, Elizabeth Hurst, Isabel M., B.A. Iving, Barbara Jackson, Annie L., B.A. Jackson, Emily M. James, Ada D. James, Agnes S. B.A. Kee, Alice

Kruse, Bertha Laidlaw, Elisabeth E. Lamb, Lily C. Lamb, M. Lawless, L. E. McDonald, Barbara
Macfarlane, Anges C.
MacKenzie, C.I., B A.
MacMartin, Christina MacMartin, Ida M. Metcalfe, Mary J. Norris, Amy Norris, Grace B. O'Grady, Annie M. Patterson, Kathleen G Patterson, Jean K. Peebles, Mary I. Ramsey, Ethel Reid, Elizabeth J. Reid, Isabella M. S. Ross, Margaret Rowell, Arthur H., B.A., Shaw, E. Louise, B.A., Smith, C. McKay Stewart, Christina W. Stewart, M. Agnes Van Vliet, Lucia P. Wilson, E. Louise

## FACULTY OF APPLIED SCIENCE.

### FIRST YEAR.

NAME.	Home Address. Where Lat Educatio.
Allen, Alexander D	. Wallaceburg, Ont
†Archibald, Henry D.,	. Harbor Grace, Nfld Meth. Coll., St. John's.
Archibald, Kenneth	.Montreal, P. O Montreal High School
	.Todinorden, Ont. School of Prac. Sc., Toronto.
tAustin, John C	.Montreal, P. QSt. John's Sch., Montreal.
*(2) Avre Charles R	.St. John's, NfldMeth. Coll., St. John's, N'd.
†Raillie Archie E	. Montreal, P. Q Dufferin Gram. Sch., Brig-
, Detries, 111 cities 2 1 1 1 1 1	ham, Oue.
*Raldwin Harold F	. Baldwin's Mills, P.Q. Stanstead Wesleyan Col.
Rambriels Hober	.Cranbrook, B.C., St. Dunstan's Coll., P.E.I.
+Rangroft Aubrey G	. Bridgetown, Barb. Harrison's Coll., Barbados.
Rolland Joseph	Montreal, P. Q Laval Univ., Montreal.
Roct William D	Montreal, P. Q Private Tuition.
	Ottawa, OntOttawa Collegiate Inst.
Plack Maurice W	. Windsor, N.S.
Diack, Maurice W Diacohord E Stirling	.Charlottetown, P.E.I. Prince of Wales Coll.,
Dianchard, E. Suring	
Damman Massardan I	Charlottetown, P.E.I M., Ste. Therese, P.Q. Montreal High School.
*Boyd, Gardiner M	Bobeaygeon, Ont. School of Prac. Sc., Toronto.
TBregent, Edmund F.	Montreal, P. Q. Shortell's Acad., Montreal.
Briggs, Arthur F. M.	. Windsor Mills, Q. Knowlton Acad., Knowlton
Bronson, Frederic E.	Ottawa, Ont Private Tuition.
Burbidge, George H.	Ottawa, Ont Trinity Coll., Toronto. Ont.
	.St. Albans, EngSt. Albans' School, Eng.
	Brockville, OntColl. Inst., Brockville.
	.Sherbrooke, P.QWesleyan Coll., Stanstead.
Cheesbrough, Arthur	G., Westmount, P.Q. Montreal High School.
*Chessman, George W.	. Denver, Col Private Tuition.
*Chrysler, Philip H	Ottawa, Ont Ashbury Coll., Ottawa.
Cook, Archibald S	.Quebec, P.Q High School, Quebec, P.Q.
Coulin, Louis A	. Montreal, P. Q High School, Montreal.
†Cummins, Philip M	. Magog, P. Q Bishop's Coll. Sch., Lennox-
	ville, P. Q.
*Davis, William T	Ottawa, Ont Private Tuition.
Delgado, Percy G	. Falmouth, Jamaica. Potsdam, Malvern, Jam'a
Dennis, William M	O'Leary, P.E.I Prince of Wales Coll.,
	Charlottetown, P.E.I.
*(2) Descarries, Joseph	A., Lachine, P. Q Loyola Coll., Montreal.
†Dickieson, Arthur L.	.Ottawa, OntCollegiate Inst., Ottawa.
Dion, A. Hector	.Ottawa, OntOttawa Univ., Ottawa.
Doran, Edward J	Montreal, P. Q Shortell's Acad., Montreal.
*Dupuis, N. Armand	Montreal, P. QMt. St. Louis Inst., Moutr'l.
Dwight, Herbert B	Picton, Ont Toronto Univ., Toronto.
†Edwards, Godfrey B.	Ashleworth, Eng., Private Tuition.
	Montreal, P. QSt. John's Sch., Montreal
*Farley, Sidney E	Buckingham, QueCollegiate Inst., Ottawa.

<sup>\*</sup> Partial Student.

† Conditioned Student.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found.

Home Address. Where Last Educated. †Farnsworth, C. Albert .Sawyerville, Que. Model Sch., Sawyerv'e, Q. Fay, Norman P......Knowlton, P. Q. .Knowlton Academy. Fetherstonhaugh, Harold L. (B. Arch. course), Montreal, P. Q.... Crichton Sch., Montreal. Goode, John D. . . . . . Westmount, Que. Westmount Academy. Graham, Harold M...New Glasgow, N.S. High Sch., New Glasgow. Grove, Humphrey S...London S.W., Eng. Grammar Sch., Bedford. Hague, Owen C. F....Montreal, P.Q....High School, Montreal. Harthan, Hans......Montreal, P.Q....D.L.E.H. Schloss Biebert, (B. Arch. Course). Germany. Harvey, Chas. H..... Montreal, P.Q.... High School, Montreal.

\*Head, Leslie H..... Montreal, P.Q.... High School, Berlin, Ont.

\*Hilborn, Percy R.... Berlin, Ont... High School, Berlin, Ont.

Hudson, George M... Montreal, P.Q... Abingdon Sch., Montreal.

Irwin, John W..... Montreal, P.Q... High School, Montreal. (B. Arch. Course). Kennedy, William A...Owen Sound, Ont.Collegiate Inst., Owen S'nd †Ker, Frederick I.....Montreal, P.Q.....High School, Montreal. La Forest, Guy B..... Montreal, P.Q....Mt. St. Louis Inst., Montreal Landry, Wilfred A.... Dorchester, N.B. Univ. of St. Joseph's Coll., Memramcook, N.B. \*Langslow, Henry R....Rochester, N.Y...Riverview Mil. Academy.
Poughkeepsie, N.Y.

\*Leggett, Charles W....Portland, Ont....Collegiate Inst., Brockville.
Lindsay, Alex. M.....Invercargill, N.Z..Boys' High Sch., Southland New Zealand. †\*(2)Lomer, Gerald R...Point Claire, P.Q. Abingdon Sch., Montreal. †Lumsden, Hugh A....Ottawa, Ont....Royal Mil. Coll., Kingston. Prince of Wales College, Macdonald, Jay.....Vernon River, Charlottetown, P.E.I. P.E.I.McDougall, J. Cecil....Montreal, P.Q.....High School, Montreal. Mackay, Edward.....Montreal, Que....Abingdon School, Montreal McKinnon, Kenneth R., New Glasgow, N.S.. High Sch., N. Glasgow. \*McLachlin, Hugh C...Arnprior, Ont...Private Tuition.
McLachlin, Ewen....Arnprior, Ont...Ashbury College, Ottawa. McLean, Douglas L....Ottawa, Ont.....Collegiate Inst., Ottawa. McNaughton, Andrew G.. Moosomin, Sask. Bishop's Coll. Sch., Len-Maltby, Quinton J.... Midland, Ont.... High Sch., Midland, Ont.
\*Marsh, Fred. W..... Quebec, P.Q.... Woodstock Coll., Woodst'k
Maver, Alex. McPhee. Montreal, P.Q... Coll. Inst., London, Ont.
†Meek, Victor M..... Port Stanley, Ont. Coll. Inst., St. Thomas.
Menzies, John W.... Ottawa, Ont... Coll. Inst., Ottawa, Ont.
Meyerstein, William C. London N.W., Eng. Abbotsholme, England.
The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found. noxville, P.Q. where the name is found.

<sup>\*</sup> Partial Student.

<sup>†</sup> Conditioned Student.

NAME.	Home Address. Where Last Educated.
*Miller, Wilbert N	Sault Ste. Marie, Ont. Coll. Ins., Slt. Ste Marie.
131 Homes V	Stardale Chit Con. Inst., Vankicok IIIII.
No. in Labor C	Truro N.S Colchester Coulity aveily,
(3131 - 111 T. Jaca 1	Part Calbarne Unit. High Scha in Chart
7) 4 116-3-1	Hattleenitt unit. High Jul., Liebengille.
Poissant, Onesime E	.St. John, N.B Rothesay Coll., Rothesay.
Porter, Cecil G	Various P.C. Varcouver Coll Various'r
Price, Thos. E	. Vancouver, B.C Vancouver Coll., Vancouv'r
17) 111 - 1-1-1-1	Liocoronio IIII: Tilvald: Lulluul.
str 7 ) 1 1)   cd   1	TANTATOR FEE NUICE COLL. St. Cathaines.
1Dida Gara R	FIRCH BAY, P.O., THEIR SCHOOL MORE CONT.
D'. 1' IIII U	Varionetta IV in Kolliesii Voll., Nouliusii i
J.D. L Acom Wim Scott	· Washmount P.O., The Academy, Westinguita
- D 1110 m (	- 1 17 17 17 17 17 17 17 17 17 17 17 17 1
TROSS, Allan CT H	Malvern, Jamaica. Potsdam Sch., Malvern, Ja.
Sailman, Robert 1. II	St. Albans, Eng Wesley Coll., Sheffield, Eng.
†Sanderson, Charles W	O-home Ont High Sch Oshawa Ont
*Scott, Oswald H	Oshawa, Ont High Sch., Oshawa, Ont.
†Singleton, Omer H	Lyndhurst, Ont. High Sch., Athens, Ont.
Slingsby, Henry. Tho	rpe Underwood Hall, England.
	Elon Con., Mindson, 124g.
Smith, George W	. Ottawa, Ont Coll. Inst., Ottawa, Ont.
Soper Arthur L	. Ottawa, Ont Coll. Inst., Ottawa, Ont Brockville, Ont Coll. Inst., Brockville, Ont. V. Moncton, N.B Aberdeen H.S., Moncton
+Stackhouse Charles V	V. Moncton, N.B Aberdeen H.S., Moncton.
+Stawart Leighton	Summerside, P.E.I Prince of Wales College,
	CHAILIOLLEGO MA L. 12.1.
Channet Doboet B	Strath Gartney, P.E.I Prince of Wales Coll.,
Stewart, Robert D	Charlottetown, P.E.I.
10 1 D 131 IT	Montreel P.O. Crichton School Montreal.
†Stroud, Paul McKay	Montreal, P.O Crichton School, Montreal.
Sutherland, Luther H	I. D. Montreal, P. Q. High School, Montreal.
Tanner, Henry E	. Joliette, P.Q Westeyan Con., Stanstead.
Taylor, Herbert R	. Joliette, P.Q Wesleyan Coll., Stanstead St. John, N.B High Sch., St. John, N.B
Townshand Charles:	Flamax, N.S King a Coneglate beneon
11.7 \ 7.7   1.1 -   11.7   11.0	D V Cookstown treigner
77 . C1 TC	Taliatta Dua - Weslevan Coll., Seulsteau.
Water Tomos P	I title Kildenii, Unit., nien Sch, mankesputy.
Will able Tomac D	Ship Flatbor Lake, N.S., Pilvale Lullien,
*/a\Warner Shelden \	V Elmira Ont.
Williamson William	W. Elmira, Ont
Williamson, William	Montreal, P.Q Abingdon Sch., Montreal.
Wilson, Alexander	U. Producieton N. B. Univ. of N. B. Fredericton.
Winslow, Kainslord	H. Fredericton, N.B. Univ. of N.B., Fredericton.
Wood, Harold W	St. Johns, P.Q High School, Montreal.
*/all'right lames	Vontreal, P.O A Diliguoti Sch., Montreal.
Yuill, Harry H	Truro, N.S Colchester County Acad'y.

<sup>\*</sup> Partial Student. † Conditioned Student. | Double Course.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found.

### SECOND YEAR.

Name.	Home Address.
Ahern, Walter J	Westmount, P.O.
*(3) Allan, Marshall G	. Perth. Ont.
Änderson, Sedley C	
*Babington, Frederic C	. Ottawa. Ont
Baird, John B	St. John's Nfld
Ballantyne, Thomas B	Galt Ont
Beaudry, Abel C	Montreal PO
*(3)Beckwith, Albert H	Amherst N Š
Rell Valentine H	Kingston Ismaica
Bell, Valentine H. Blackett, Victor St. C.	Gloop Rox. N.S.
Brennan, Charles V	Summoreido DEI
Briegel, Walter O	Montroal Oue
Bristol, Charles F	Voncourre P.C
Compres Tomos S	Stallantan N.C.
Cameron, James S	Delication, N.S.
Campbell, Edmund E	
Carmichael, Henry G	Montreal, P.Q.
‡Chambers, William D	Ottawa, Ont.
Christie, Harold R. M	Asheroit, B.C.
‡Cowan, Claude W	Ottawa, Ont.
*Crocker, Stanley J	Montreal, Que.
D'Aeth, John B	Kingston, Jamaica.
Dalton, Arthur T	Vancouver, B.C.
Davies, Harold C	Hull, P.Q.
Davis, Francis M	Windsor, Ont.
Dawson, Victor E	
‡De Lancey, James A	Middleton, N.S.
Dick, William J	Nanaimo, B.C.
Dickson, Garnet H	Westmount, P.O.
*Downey, James J. C	
Drysdale, Charles W	. Montreal, P.O.
‡Fetterly, Philip A	. Aultsville, Ont.
Filer, Samuel W	. Montreal, P.O.
‡Finlayson, John N	. Merigomish. N.S.
Forbes, John Hunter	Montreal P.O.
*Frith, George Harry	Cummings Bridge Ont
*Gillis, J. E	Matanedia PO
Gilmour, Hamilton L	Ottawa Ont
†Gomes Lawrence F	St Johns Antique R W I
‡Gomes, Lawrence F	St Lambert DO
‡Gosselin, Albert	Notre Dome de Stanbridge
Graham, John R	Ottorio Ont
‡Graham, Dallas F	Montroel DO
Coop Harold D	Ools Loof Oot
Green, Harold P.	Cohouse Ont
Guillet, George L	Vicentary Land
Harris, Harvey W	Charlettet
*Harris, James E	Coloriottetown, P.E.I.
Hattie, James B	. Caledonia, N.S.

<sup>\*</sup> Partial Student.

† Conditioned Undergraduate.

| Double Course.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found.

NAME.	Home Audress.
AME.	
*Ilealy, R. J	Liverpool N.S.
*Hendry, Andrew W	Ottomo Out
Herbert, William H	Combailer Most
Heywood, Edward P	Diades a DO
Hodge, Charles A	Ottomon, F.Q.
Irwin, Robert H	. Ottawa, Ont.
‡Kemp, James C	London, S. W., England.
Kerr, Archibald	Dutton, Ont.
*(3) Kilbourn, Fred B	Owen Sound, Ont.
Letourneau, Marius	Montreal, P.Q.
Lighthall, Abram	Yankleck IIII, Ont.
Lundy, T. H. D	Brantford, Ont.
Lynch, Francis C. C	Grenville, P.Q.
McBeath, D. Blair	Marshield, P.E.I.
McGuire, Gordon A	Montreal, P.Q.
Manny, David E	. Beauharnois, P.Q.
t Wather, William A	. Kenora., Ont.
Mayers, Francis L. S (B.Arch, course)	), Margate, Hastings, Barbados.
Melhuish, Paul	East Sheen, Surrey, England.
‡Millen, Walter H	. Hull, P.Q.
Mohan, Richard T	. Brockville, Ont.
Montague, T. M	trait, Ont.
tMontgomery, Edgar G	. New Richmond, P.Q.
Moore, William L	. Hyde Park, Vermont.
Morrin Arthur D	. Lachute, P.Q.
Morrison, Albert G	. Woodstock, Unt.
Murphy, William H	. Rochester, N. 1.
*(3)(4) Neily, Robert V	South Brookneld, N.S.
Vicolls, Jasper H. H.,	. Montreal, P.Q.
Parham, John B	. Outremont, P.Q.
Pease, E. Raymond	. Montreal, P.Q.
Perry, Kenneth M	. Kegina, Sask.
†Phillips, Hobart W	, Uskaioosa, Towa.
Pitts, Gordon McL	Ottawa, Ont.
Pratt. Austin C	. Ottawa, Ont.
Rankin, Arthur G. E	Montreal, P.Q.
Raphael, Gordon S	.Ottawa, Ont.
Richardson, Charles E	.St. Mary s, Ont.
Robertson, Gilbert	. Brantford, Ont.
*Rogers, H. G	. Peterboro, Ont.
Ross, Cecil M	. Ottawa, Ont.
‡Ross, Charles C	. Ottawa, Ont.
Ross, Donald	. Edmonton, Alta.
Ruttan, Frank N	. Winnipeg, Man.
Saunders, Charles W. Mcl	. Kingston, Jamaica.
Saunders, Charles W. Mcl Scott, W. Ralph	. Napanee, Ont.
*(3) Scovil, Harry H	. Hampton, N.B.
‡Seely, Roy A	.St. John, N.B.
Shanks, Albert	. Howick, P.Q.

<sup>\*</sup> Partial Student.

‡ Conditioned Undergraduate.

| Double Course.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found.

NAME.	Home Address.
Smith, Randolph R	Montreal, P.O.
Sillini, Kandorphi K	Truro N S
‡Snook, John S Spencer, Walter H	Manager DO
Spencer, Walter H	Montreal, P.Q.
TStennen, 10mm A	Ottawa, Ont.
Stitt, Ormond M	Ottawa, Ont.
*Strumbert, James A	Montreal, P.O.
+Strumbert, James 11	Dartmouth N.S.
†Thorne, Harvey	Westmouth P.O.
†Trenholme, George A	Westmount, P.Q.
Turnhull Kenneth	. Montreal, P.O.
Vipond, William S	Montreal, P.Q.
Vipond, William S	Ottawa, Ont.
Whitton, Corbett F	Hamilton Ont
Wnitton, Corpett F	Ottown Ont
Whyte, Herbert B	
Whyte, Herbert B	Stratford, Ont.
Wood, Alex. C	Westmount, P.Q.
Younger, Harry R	. Ottawa, Ont.
Zimmerman, H. Geddes	Hamilton Ont
Zimmerman, H. Geddes	
THIRD Y	TEAD
I HIKD I	EAR.
Barclay, C. H	St. Paul. Minn.
Daiciay, C. II	Montreal PO
Barclay, Malcolm D	Montreal DO
†Barclay, Malcolm D †Baylis, Harold A	. Montreal, P.Q.
Dooton Norman H	on Cannamics, One
Rell George E	St. Thomas, Ont.
Black, Hiram J	Amherst, N.S.
Diack, Illiam J	Halifax N.S.
‡Brodie, William S	Mataalfa Ont
Brown, Lindsay O	Metcane, Ont.
Brown S. Barton	Ottawa, Ont.
Brown, Wm. Godfrey B	Quebec, P.Q.
Brown, Wm. Gordon	Montreal, P.Q.
Callaghan John C	Hamilton, Ont.
Canagnan, John C	Woodstock Ont
Callaghan, John C	None of We
‡Cattanach, Frederick W. C	Newport, vt.
Churchill, Cecil	Hantsport, N.S.
+Doly William I	Westmount, P.O.
†Daly, William J  Davis, George H	Gananoque Ont.
Davis, George 11	Westmount PO
ITROKSON, Wallace	
*(4) Dougherty, John J	Sherbrooke, P.Q.
Desembond George D	Midiand. Ont
* (4) Dunning, Frank G Elliott, Percy H	Stoodleigh, N.Devon, England.
Elliott Dorov H	Saskatoon, Sask.
Dillott, Felcy 11	O'Leary PEI
Ellis, Robert C	O Cound Ont
Ewens, William S	Owen Sound, Ont.
Foster, Henry S	Montreal, P.Q.
Gamble, Clarke W	victoria, b.C.
Gill, Allan G	Ottawa, Ont.
Coldin Edward C	Toronto Ont.
Goldie, Edward C	Edinburgh Scotland
Gray, James S	Edinburgh, Scottand.
Griffin, Frank F	Winnipeg, Man.

<sup>\*</sup> Partial Student.

‡ Conditioned Undergraduate.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found.

Name.	11
Hall, Gerald R	HOME ADDRESS.
Hall Norman M	Peterboro, Ont.
Hall, Norman M	Cornwan, Ont.
Harrington Coursel D	Medicine Hat, Alta.
Harrington, Conrad D	Montreal, P.Q.
Haskell, Ludlow St. J	Montreal, P.Q.
Haughton, Harold M. S	Kingston, Jamaica.
Hay, Norman K	Ottawa, Ont.
*Hayes, Albert Orion	Denois C. 11
Howa Talan D	Dunmore, Cullompton, Eng.
Howe, John P.	Pembroke, Unt.
Kenyon, Lot A	Koenene, P.Q.
Killam, Lawrence	Yarmouth, N.S.
Lamb, Henry M	Montreal, P.Q.
Lathe, Frank E	Lacolle, P.Q.
Little, William D	Morden, Man.
Macaulay, Rupert M	Scotstown, P.Q.
McCallum, George H	Smith's Falls, Ont.
‡McCuaig, Stuart	Montreal, P.Q.
McDonald, Harold F	Fort Qu'Appelle, Sask.
MacDonald, Robert Ross	Hamilton, Ont.
IMacDonald, Wm. Malcolm B	Rammerscales, Lockerbie, Scotland.
IMackay, Robert M	New Glasgow, N.S.
†Mackinnon, John A	Finch, Ont.
MeWilliam, Thomas H	Ford's Mills, N.B.
Macklem, Oliver T	Toronto, Ont.
Mathieson, Donald M	St. Mary's, Ont.
Maxwell, Lawrence G	St. Mary's, Ont.
Miller, Henry B	Montreal, P.Q.
Morrow, Hugh M	Halifax, N.S.
Moyse, John J	Montreal, P.Q.
Mulligan, William H	Chaplean, Ont.
Munn, D. Walter	Montreal, P.O.
Norton, Thomas J	Montreal, P.Q.
Otty, George N	Hampton, N.B.
Otty, George N	Melbourne, Australia.
*Paulsen, Hans K	Copenhagen, Denmark.
‡Pickard, Herbert G	Exeter, Ont.
Racy, P. W	Lennoxville, P.O.
Renaud, Bruce E	Montreal, P.O.
‡Richards, Edward L	Port Antonio, Jamaica.
*(4) Richards, William A	Pembroke, Ont.
Riddell, Arthur G	Hamilton, Ont.
Robb, Fred G	Montreal, P.Q.
Roger, Alec	Ottawa, Ont.
Ross, Douglas G	Toronto, Ont.
†Ryan, Frederick G.	St. Lambert P.O.
IScott, Wm. Gordon	Valleyfield, P.O.
* (4) Seaborn, Arthur V	London, Ont.
Shearer, George W	Westmount, P.O.
‡Shorey, Harold E	Montreal, P.O.

<sup>\*</sup> Partial Student.

‡ Conditioned Undergraduate.

The figure (2), (3) or (4), prefixed to a name, indicates that the student takes a class in the corresponding year as well as in that where the name is found.

NAME.	Home Address.
‡Slavin, Reginald C	Deseronto, Ont.
Spafford, Arthur L	Lennoxville, P.Q.
*Strangways, Henry F	
Trimingham, James H	Hamilton, Bermuda.
Wark, Samuel D	Langley Prairie, B.C.
Westland, Clarence R	Wyoming, Ont.
Wheaton, Isaac G	Point Midgic, N.B.
Whiteomb, Frank O	Smith's Falls, Ont.
Williams, Frederick H	East Sherbrooke, P.Q.
Wilson, William S	Niagara Falls South, Ont.
Woodyatt, James B	Brantford, Ont.
Wright, George R	Salisbury, N.B.

# FOURTH YEAR.

Anderson, Frederic W	. Ottawa, Ont.
Anglin, James P	. Montreal, P.Q.
‡Barrington, Frederick H	. Waterloo, P.Q.
Beaubien, James de G	.Outremont, P.Q.
Black, Douglas E	. Montreal, P.Q.
Beaubien, James de G.  Black, Douglas E.  Black, Thompson T.	. Montreal, P.Q.
Blackader, Gordon	. Montreal, P.Q.
Boyd, Alfred M. S	.Cote des Neiges, P. Q.
Brady, James C	. Victoria, B.C.
Brennan, G. Eric	.Ottawa, Ont.
Brunner, Godfrey H	. Liverpool, England.
†Burnett, Archibald	. Montreal, P.Q.
Christie, Clarence V	. Halifax, N.S.
Clawson, Ernest E	.St. John, N.B.
‡Cole, George E	. Phœnix, B.C.
Cole, L. Heber	. Montreal, P.Q.
‡Corrigan, Thomas L	. Brockville, Ont.
‡Cowen , Reginald P	. Dalston, England.
Davidson, Thomas R	. Montreal, P.O.
‡Dawe, Robert G	.St. John's, Nfld.
‡Dibblee, Edmund S	. Woodstock, N.B.
Durkee, Pearl W	. Digby, N.S.
Durland, Royden K	. Yarmouth. N.S.
tEmmerson, Henry R	.Dorchester, N.B.
‡Emmerson, Henry R. Forbes, John Macneill.	. Bonavista, Nfld.
‡Gibbs, Harold E	. Port Arthur, Ont.
Gordon, Maitland L	.Toronto, Ont.
Gray, Alex. M	.Edinburgh, Scotland.
Gurd, Andrew D	. Montreal, P.Q.
tHadley, Henry	. Montreal, P.O.
Harvie, James	. Westmount, P.Q.
Harvie, James	. Westmount, P.O.
Hibbard, Melville L	. Farnham, P.Q.
Higgins, B. Howard	. London, Ont.
Howell, Edgar N	. Westmount, P.Q.
Jackson, Maunsell B	. Toronto, Ont.
Kirkpatrick, Everett C	. Montreal West, P.O.
Livingstone, Douglas C	. Corfield, B.C.
	·

<sup>\*</sup> Partial Student. ‡ Conditioned Undergraduate.

NAME.	Home Address.
Loudon, Andrew C	Ottawa, Ont.
MacCarthy, Arthur K	Ottawa, Ont.
McConkey, Thomas C	Guelph, Ont.
McCuaig, G. Erie	Montreal, P.O.
iMcIntosh, Robert F	Newcastle, Ont.
McLachlan, D. W	Lochaber Bay, P.O.
McLachlan, D. W	Montreal, P.O.
McMeekin, Albert	Bright, Ont.
Macnab, John J	Elsinore, Ont.
Mudge, Reginald	Montreal, P.O.
Newton, Stephen G	Sherbrooke, P.O.
Pedley, Norman F	Montreal, P.O.
Piché, Ernest A	Montreal, P.Ö.
Piers, E. O. Temple	Wolfville, N.S.
Pinch, Harry H	Owen Sound, Ont.
Presner, Joseph	Montreal, P.O.
Purdy, James de Lancy	Springhill, N.S.
Ritchie, Alan B	Halifax, N.S.
Ritchie, Alan B	Montreal, P.O.
Ross, Daniel	London, Ont.
‡Ryan, John H	Prescott, Ont.
‡Slater, Nicholas J	Ottawa, Ont.
	Johannesburg, South Africa.
‡Taylor, Allan H	Ottawa. Ont.
Thomas, Herbert P	Brighton, Victoria, Australia.
Turley, Edward J	Frankford, Ont.
Vansittart, George E	Toronto, Ont.
‡Wickware, Francis G	Easton's Corners. Ont.
Winter, Elliot E	Georgetown, British Guiana.
‡Young, Horace G	Osnabruck Centre, Ont.
	· · · · · · · · · · · · · · · · · · ·

<sup>‡</sup> Conditioned Undergraduate.

# FACULTY OF LAW.

### FIRST YEAR.

Ballon, Isidore *Callaghan, Frank O Cameron, A. W., B.A Hepburn, William Walter, B.A Hyde, George Gordon, B.A Jenkins, Joseph, B.A McMurtry, Rennie Oglivie, B.A *Millman, Lazarus. Pelletier, Alexis D., B.A Stewart, William, B.A Stewart, Thomas S., B.A	Montreal, P.QWestmount, P.QRichmond, P.QWestmount, P.QMontreal, P.QMontreal, P.QMontreal, P.QMontreal, P.Q.
Second	YEAR.
Creelman, J. J Dillon, Joseph Henry Girouard, J. Arthur Parkins, Edgar R., B.A Walker, James H. E	Montreal, P.Q. Dawson City, Yukon. Montreal, P.Q.

### THIRD YEAR.

Calder, R. L	Montreal, P.Q.
Couture, Gui C. Papineau, B.A	Montreal, P.Q.
Crankshaw, James, Jr	. Westmount, P.Q.
Downes, Patrick J., B.A	. Montreal, P.Q.
Johnson, Walter S., B.A	
Legault, Joseph L. L	. Montreal, P.Õ.
McKenna, Francis E., B.A	
Shallow, T. Jack	
Shepherd, R. J	
Sperber, Marcus Meyer	
Stackhouse, Russell T	
Tanner, Agenor H	
Tritt, Samuel G	
•	· ~

<sup>\*</sup> Partial Student.

# FACULTY OF MEDICINE.

PIRST VEAR

First Y	EAR.
NAME.	Home Address.
Allan, Alfred St. Leger	Harbor Grace, Nfld.
Anderson, William M	Midgie, N.B.
†Archibald, David W	North Sydney, C.B.
Atkinson, Paul McLatchy	Albert, N.B.
Auld, Frederick Moore	Cove Head, P.E.I.
Railor Cameron Vernon	New Glasgow NS
Bailey, Cameron Vernon	Montreal PO
†Barnhill, Harold Bruce	Two Rivers NS
Benoit, Hector W	Ottawa Ont
Booth, Gordon E	City View Ont
†Brown, Samuel	Hallwille Ont
Burhoe, George C	Alexandra P.F.I
Cameron, John R	Charlottetown D.F.I
Camer Michael James B A	Holifar N.S.
Carney, Michael James, B.A	Controvillo V D
Cody, Harry C	St Cathoring Out
Conn, Leighton C	Delmont Dood Dorbod a
*Corbin, Karl F. A	Compagnition D.O.
Cotton, Thomas F., B.A	Cowansvine, P.Q.
Craig, Hector M	Keninore, Ont.
†Crawford, J. W	Denis Out
†Crease, Walter Ernest (Dentistry) .	Barrie, Ont.
†Cron, Charles	Harbor Grace, Mild.
Curry, Wilfred Alan	Halilax, N.S.
D'Avignon, Francis Joseph	Au Sable Forks, N.Y.
Davis, Charles J	Guysboro, N.S.
Dorsey, Joseph W	Charlottetown, P.E.I.
Doyle, Philip Ernest	Hawkesbury, Ont.
Dunlop, Fred T	St. John, N.B.
Ewing, William Theodore	Montreal, P.Q.
Foster, Arthur Neville	Alma, N.B.
*Fraser, Maxwell John	Stratford, Ont.
Froomess, Leo E	Montreal, P.Q.
†Frost, Percy J	Montreal, P.Q.
Funk, Edwin Henry	Rossland, B.C.
Gillis, John Joseph, B.A	Miscouche, P.E.I.
Gillis, Stephen H	Indian River, P.E.I.
Gliddon, William O	. Ottawa, Ont.
Grady, Anthony Bonaventure	Clinton, Mass.
Graves, Charles Allan	Tilsonburg, Ont.
Greenleese, J. Carey	
Hale, George Carleton	London, Ont.
†Hawkshaw, Edward Parry	Chilliwack, B.C.
Holloway, Edwin Charles Percy	Ottawa, Ont.
†Irven, John James	Alexandria, Ont.
Jenkins, John Stephen	Charlottetown, P.E.I.
'Kaine, William Joseph, B.A	Brattleboro, Vermont.
†Kearney, Garnet Harvey	Renfrew, Ont.
Keay, Arnold	New Glasgow, N.S.
Kelly, Clement Michael	Springfield, N.B.
	1 0

<sup>†</sup> Conditioned Student. \* Partial Student. || Double Course.

NAME.	Home Address.
Lafontaine, Ulric L	
Lannin, John Charles Justin	South Mountain Ont
Larivière, Joseph O	Manyille R L
Lawrence, Watson Angus	Lisbon, N.Y.
Lawson, George Chester	Charlottetown, P.E.I.
Leys, W. Murray	Brantford Ont.
Lindsay, Lionel M	Montreal P.O.
McCracken, William Alexander	Cornwall Ont.
McEwen, S. Cameron	Nanaimo, B.C.
McGarvey, Owen	Ottawa Ont.
McIntyre, Edward Lorne	Forest Ont.
†Maclean, Charles George Greig	Victoria. B.C.
*McMillan, Alexander	Ottawa Ont
McMillan, William Herbert	Brockville Ont
Manning, Gerald Miller	Bridgetown Barbados
*March, Bloomfield	Montreal PO
†Markson, Simpson	Alexandria. Õnt.
*Matthews, Stephen Charles	Montreal, P.O.
†Murray, Joseph M	Marmora, Ont.
Ower, John James, B.A	Smith's Falls. Ont.
Palmer, John Ernest	Hampstead, N.B.
†Reed, Everett H	Whitman, Mass.
Reilley, Herschell Edward	Shanly, Ont.
Scott, George Orville	Ottawa. Ont.
Scott, John Barret	Hull. P.O.
Sharp, Claud Evelyn	Spanish Town, Iamaica
Smith, Bruce S	Boston, Mass.
Stewart, Alexander	
Turnbull, Frederick Myles	Bear River, N.S.
Underhill, Thomas Burpee	Melita. Man.
Wilson, George Thomas	Vancouver, B.C.
Worley, Ernest George	Halev's Station, Ont.
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# SECOND YEAR.

Adcock, John Paul	Weymouth, England.
Allen, John A. L	Hallville, Ont.
Allen, Kenneth W	
Arbuckle, John W	Summerside, P.E.I.
Arton, Ogilvie A	Bailey's Bay, Bermuda.
Baldwin, William J	Ogdensburg, N.Y.
Barry, J. Leonard	Morrisburg, Ont.
Bennett, Samuel J	Waterloo, Que.
Black, James R	
Bleasdell, William A	
*Bonness, Edmond J	
Callaghan, William A	Ogdensburg, N.Y.
Cameron, George L	Mt. Albert, Ont.
Campbell, Donald G	Montreal, Oue.
Campbell, John DeL	Arnprior, Ont.
Carnell, Arthur H	St. Johns, Nfld.
Carr, James B	Campbellton, N.B.
	_

<sup>†</sup> Conditioned Student.
\* Partial Student.
|| Double Course.

Name.	Home Address.
Chipman, Richard L	Kentville NS
Churchill, Lewis P	Sackville N B
Clarke, James C	Nelson B C
Clarke, Thomas L. E.	St. Johns Barbados B.W.I.
*Cox, Charles G	Hull Oue
Craig, Delmer A	Kemptville Ont
Cross, C. Ernest	Montreal Que
Daigneau, Paul L	Waterloo, Ouc.
Davis, Daniel W	. Brockville. Ont.
Davis, Stephen	. Montreal. Oue.
Dewar, Rod. D	Glen Sandfield, Ont.
DeWitt, Avery E	. Wolfville, N.S.
Dexter, Roderick B	. Wolfville, N.S.
Donahoe, Robert A	.Cardigan, P.E.I.
Donahue, Hugh F	. Leominster, Mass.
Drury, Walker H	. Barrie, Ont.
Dunnet, Henry W	.Ottawa, Ont.
Fenton, George S	.Ottawa, Ont.
Foster, Lowell S	.Alma, N.B.
*Fraser, Lewis H	. Truro, N.S.
Freedman, Abraham	.Montreal, Que.
Fyfe, Alexander M	. Kingston, Jamaica.
Garcelon, Harold W	. Lewiston, Me.
Gardiner, Alfred E	
Gilmour, William N	. Brockville, Ont.
Goodwin, Burton E	. Amherst, N.S.
Gwyn, Charles C	.Dundas, Ont.
Harry, Archippus C	.Kingston, Jamaica.
Holbrook, Charles E.	.Ogdensburg, N.Y.
Hunter, William B	. Vanceboro, Me.
Jenkins, Willard M.	.Downeyville, N.B.
Kaufman, Joseph	. Montreal, Que.
Kelley, J. W. Kennedy, Alan H. X.	Detroit, Mich.
Kirby, William P.	. Macreott, Arta.
Lees, Fred W.	. Gagetown, N.D.
London, Jepson F	
Lovering, James E	Coldwater Out
Lynch, John G. B	Almonte Ont
McBride, Walter P	Central Redeque P.E.I.
McCordick, A. Howard.	Richmond West Out
McCrea, George P	
McDonald, Ronald H	North Bedeque, P.E.I.
MacDonell, Donald F'	Port Hood N.S.
McGibbon, James A	
McGrath, Joseph P	Tignish, P.E.I.
McGrath, Maurice J	Ogdensburg, N Y.
McMillan, William J. P	.Clermont, P E.1.
Martin, Arthur A	. Fingal. Ont.
Martin, Frank W	. Avlmer, Oue.
Massiah, John H	. British Guiana.
Miller, Robert L	. Harvey, North Dakota.
Morin, Joseph H. G.	.St. Hyacinthe, Que.
Murphy, Giles B	. Brockville, Ont.

<sup>\*</sup> Partial Student.

Name.	HOME ADDRESS.
Nagle, Francis W	. Montreal, Oue.
Nordbye, Frithjof A	. Granite Falls, Minn.
Ortenberg, Samuel	Ouebec, Oue.
Paterson, John H	. Almonte, Ont.
†Perrigard, Ernest N	. Montreal, Que.
Powell, Ralph E	. Sackville, N.B.
Purdy, Charles E	. Bear River, N.S.
Read, Edward S	. St. Felix de Valois, Que.
Read, George C	.Summerside, P.E.I.
Robinson, George	. Concord, N.H.
Rocheleau, Walter C	. Woonsocket, R.I.
Rowell, John S	. Montreal, Que.
Scott, Walter H	.Edmonton, Alta.
Shanks, George	. Howick, Que.
Shewan, Douglas R	. Westmount, Que.
*Ship, A. Phillip	. Montreal, P.Q.
Simpson, James S	. Maynard, Ont.
Soley, Lawrence A	.Springhill, N.S.
Sparks, J. J	.St. John's, Nfld.
Speer, Robert B	. Danville, Que.
Stein, Seymour F	. Kemptville, Ont.
Tannenbaum, David	. Montreal, Que.
Tanton, Edwin T	.St. Eleanor's, P.E.I.
Taylor, Thomas H	. Cumberland Mills, Que.
Thomas, F. W	TT 41 1 37 TS
Tracy, William L., M.A	. Hartland, N.B.
Turner, John S	Spanish Town, Jamaica, B.W.I
Wallace, Irwin	. Belleville, Ont.
Walsh, John P	. Quebec, Que.
Waugh, Oliver S	. Westmount, Que.
Wilson, Karl M	. Madoc, Unt.
Wilson, Murray J	Charletteteven D.F.I.
Yeo, Ira James	. Charlottetown, P.E.I.

# THIRD YEAR.

Arthur, James Ross	. Perth, Ont.
Baird, Walter Stewart	
Bechtel, Arthur Daniel	. Victoria, B.C.
Benvie, Robert Maclean	
Bernstein, David H	
Blanchard, Harold Blake	. Mallorytown, Ont.
Bray, Dallas Gilbert	
Brydone-Jack, Frederick William	. Vancouver, B.C.
Clarke, Frederick Clarence	
Coborn, Josiah	
Covey, Herman Walter	
Dearborn, Henry F	
Denovan, Botsford	. Montreal, P.Q.
Dixon, John A	. Almonte, Ont.
Edwards, William F	.Smith's Falls, Ont.
Eggert, Charles A	
Enright, William E	. Sherbrooke, P.Q.
9	

<sup>\*</sup> Partial Student. † Conditioned Student.

	Hann Appropri
NAME.	HOME ADDRESS.
Farris, Hugh A	Piolomond P.O.
Fraser, Simon B	Kazabazua PO
Gabie, Wm. Gardner	Lawiston Me
Garcelon, William S	Rexton V B
Girvan, Robert G	Arundel PO.
Graham, Douglas W	Montreal PO
Gray, Edwin H	Campbellton, N.B.
Gray, William E	Montreal P.O.
Grier, Reginald T	Montreal, P.O.
Hand, William T	Montreal, P.O.
Hawkins, Zadok	
Healy, James J	Smith's Falls, Ont.
Hill, Albert Lyon.	Derry, N.H.
TI 1 Walled 110 100 110 100 100 100 100 100 100 10	Similificiated Titairi
Lannin (-00mga H	. South Mountain, One
Locke Ernest E	. II Collinounter
M-Comm Tompos H	. South Flammenam, Mass
11-C-man Complete	. Di., TUIIII S. ATIIG.
McDonald John N	. Offerourie, 14.0.
Maclachlan William W. U	. Guerri, Onc.
Malannan Alexander I.	Lancaster, Ont.
Markat Variable 1	. Montreal, F.O.
Morgan lames II	Montical, 1.2.
Muir David H	11410, 11.0.
Marin Halton	11410, 20.0.
Vanton Frank A	Sav-ja-mar, jamaica
Oulton Morrillo d M.	TOILCUIC, AND
1) altron ld Origin La	
Dannay Laurie T W	. Mew Germani), M.O.
Dotore Houry I.	St.   OIIII, A.D.
Donton lossocities	I UN assam, Onc.
Oning Francis P	Ottawa, Onc.
Dalamoratch 1137	MIOHILICAL, I .V.:
Polinson Robert C	. Winchester, Oil.
The Control Control	Westinginit. F.C.
Rublee Orson E	MOLUL LIMETE'S LY . Z.
Causing Carl II	. Lewiston, Mc.
Shankel, Fred. R	Clarance Ont
Shirreffs, Heber S	Goshan VS
Sinclair, George W	Winning Van
Sinclair, George W. Stephens, George F. Stevenson, Arthur B.	New Glisgow, P.E.I.
Taylor Coorgo ()	Hillsboro, N.B.
Taylor, George O	Mattawa, Ont.
Thwaites, George E	Trinidad. B.W.I.
Trufant, Lester H	Auburn, Me.
Vescy, Eustace M	York, P.E.I.
( csc), Dustace M	

	TT
Name.	HOME ADDRESS.
Waddell, Jerrold R	.Chatham, Ont.
Wallace, Carl T	. Eureka, Camornia.
Whitelaw, William A	. Meaford, Ont.
Wolff, Edward K	Hamilton Bermuda.
Woll, Edward K	Resconsfield Ont
Woodrow, James B	Manager DO
Wright, Robert Percy	. Montreal, P.Q.
Fourth Y	EAR.
Adams, Horace Perley	Danville, P.O.
Allen, Hanson C. B	Cape Tormentine N.B.
Allen, manson C. D	Iroland
Anton, Duncan L. S	, Heland,
Arnold, Duncan R., B.A	.St. John, N.B.
Auld, John W	. Cove Head, P.E.I.
Bailey, George W	Fredericton, N.B.
Blake, Edson A	South Stukely, P.O.
Day 11: Vincent	Violechurg Miss
Bonelli, vincent	Denzillo P.O.
Brown, Gordon T	. Danvine, F.Q.
Rurla George H	. Ogdensburg, N.Y.
Callbeck, Albert D	Tryon, P.E.I.
Cameron, A. Barton	Lancaster, Ont.
Chandles Asther D D A	Montreal PO
Chandler, Arthur B., B.A	Martintown Ont
Christie, Hugh H	Detter Out.
Clark, George S	. Durion, Onc.
Conrov Bernard A	. Montreal, 1.9.
Crowe, Henry S	Central Unslow, N.S.
Initon Inmedia	51. 10111. IX.D.
Donnelly James H	Buffalo, N.Y.
Donnelly, James H.  Duggan, Richard G.  Ewart, David.	Hamilton Ont
Duggan, Richard G	Ottown South Ont
Ewart, David	Ottawa South, Ont.
Pairie James A	. Montical, 1.Q.
Field, Burton K	. Port Eight, N.D.
Flegg Kobert F	. Ottawa, Ont.
Forbes, Arthur E. G	Little Harbor, N.S.
Fraser, David Roy	Montague Bridge, P.E.I.
Present Thomas Dieles	Liverpool N.S.
Fraser, Thomas Blake	Montrool DO
Fripp, George D., B.A	Mt1 D O
Furse, William J	. Montreal, P.Q.
Lallies Laentge E.	. 1 CCSWatCI, OHG.
Gourlay, Henry B	. Montreal, P.Q.
Green, Thomas B	. Virden, Man.
Groves, Osler M	Carp. Ont.
Gurd, Fraser B., B.A	Montreal PO
Gurd, Fraser D., D.A	Moridan Conn
Hackett, John F., B.A	Leavise DO
Hammond, James F	Tronside, P.Q.
Hanington, Darrell P	. Victoria, B.C.
Hardy, Alburne N	. Allendale, N.S.
Handarson Smith	Ortawa, Ont.
Hawitt Thomas I	Montreal, P.O.
LLII Dishard C M D	Great Falls Mont.
Hewitt, Thomas J	Hamilton Ont
Fillman, Uliver S	. Hannicon, Onc.
Holden, Charles P	.St. John, N.B.
Hollbrook, Robert E	. Minto, Man.
Howlett, George P	. Ottawa, Ont.
Hunter Archibald W	. Durham. Ont.
Hunter, Joseph D	Victoria, B.C.
Lienton Thomas V	East Florenceville N B
Truffler, Thomas V	Last I fortheetine, It. D.

Name.	HOME ADDRESS.
Huycke, Austin H	. Warkworth, Ont.
Johnson, Brougham F	. Midland, N.B.
Joughins, James L.,	. Moncton, N.B.
Keddy, Owen B	. Million, N.S.
Kelly, Arthur B	. Mealord, Ont.
Kerfoot, Herbert W	.Smith's Falls, Ont.
Layton, James S	.Oakfield, N.S.
Lindsay, Edwin A	. Calgary, Alta.
Lomer, Theodore A	. Montreal, P.Q.
Lyon, George R. D	.Ottawa, Ont.
MacArthur, Clarence O	.Summerside, P.E.I.
MacArthur, Reginald S	.Summerside, P.E.L.
MacCallum, John D. G	. Montreal, P.Q.
MacDonald, Purdy A	. Alma, A.B.
McDougald, Wilfred L	. Cornwall, Onc.
McEwen, E. Howard	. Nanaimo, B.C.
MacLeod, John M	Finals Out
McMillan, John A	Plack River V R
MacNaughton, George K	Courtenay RC
McPhee, Thomas J	Vittoria Ont
Mair, William L	Clinton Ont
Malcolm, Donald C	St John X B
Mercer, Thomas C	Chilliwack, B.C.
Michaud, Joseph N	Campbellton, N.B.
Monahan, Richard J	Montreal, P.O.
Mullin, Joseph J	. Montreal, P.Q.
Munroe, Alexander R	. Woodstock, Ont.
Munroe Frederick D	Moose Creek, Ont.
Nathan, David	. Montreal, P.Q.
Noble, Ermy C	. Kandorph, Vt.
Parsons, William H	. Harbor Grace, Nild.
Patterson, William I	. Moncton, N.B.
Payne Gerard A. L	Leonora, British Gulana.
Peat, Gilbert Barnfylde	. Andover, N.B.
Petersky, Samuel	. Vancouver, B.C.
Raftery, Charles R	Montreal, P.Q.
Ralph, Albert J	Montreal, P.Q.
Reilly, Wellington H	Montreal, P.Q.
Rilance, Charles D	Degraching Pa
Risher, Frank O	Winninga Van
Pobling Fredrice F	Holifox VS
Robbins, Evelyn E	Regina Sask
Shaw, Robert M	Penobsanis N.B.
Sheahan, John J.	Haley's, Ont.
Sims, Herbert L.	Ortawa, Ont.
Sweeney, John L.	Dover, N.H.
Swift, Thomas A	. Montreal, P.Q.
Tierney, James E	. Niagara Falls, N.Y.
Tiller Mexander R	Ottowa Ont.
Turnbull, James W	Spring Hill, Ont.
Walker, John L	Ormstown, P.Ç.
Walsh, Cornelius E	Jordan Palls, N.S.
Weldon, Richard C	Halitax, A.S.
White John II	Official Ont
Williams, Cyril S	I vne Valley, P.E.1.
Wilkins, Fred. F	, Montreal, 15.9.
Young, Alexander M	MIMSVIIIE, N.S.

# COLLEGES AFFILIATED IN ARTS.

### STANSTEAD WESLEYAN COLLEGE.

SECOND YEAR.

Undergraduates.

Libby, Ruth E.

### VANCOUVER COLLEGE.

FIRST YEAR.

Undergraduates.

Anderson, Margaret Isabella Ferguson, Harold McLeod Howell, Lucy McLellan Jones, William Ayres Lawson, Elizabeth Catherine McCartney, Margaret Ellen MacKinnon, Duncan; Arthur MacLeod, Alexander Samuel Philip, Nora
Phipps, Roy Gage
Price, Harold
Robertson, John Climo
Salo, Matthew August
Stewart, Edith Louise
Thompson, Andrew Rutherford

Conditioned Students.

Green, Pearl Alberta McNaughton, Ira James Murray, Ernest Thompson Sutherland, Christie Anne

SECOND YEAR.

Undergraduates.

Anderson, Goldie Fraser Becker, Grace Mabel Clarke, John Emerson, John Gibbons, Gwynn Gilbert Pearson, Mabel Mary Randall, Orville Felt Stone, William Ross Yates, Arthur

### VICTORIA COLLEGE.

FIRST YEAR.

Undergraduates.

Baxter, Wilhelmina Cunningham, Jeffree A Fullerton, Florence Russell, Isabel

Conditioned Students.

Erskine, Eunice Finch, Oric Gregg, Isabel Hing, Peter Macrae, Lawrence Miller, Howard More, Catherine

Partial Student.

ylor, Eva

# SUMMARY.

Students in Arts:—		
Men —Post Graduate Students	I	
Undergraduates	166	
Conditioned Students	1.5	
Partial Students		
Women—Post Graduate Students		
Undergraduates	7.4	
Conditioned Students	7	
Partial Students	49	
Partial students taking Special Courses for Teachers	57	
Special Students	. 2	
Students in Arts, Stanstead College	. I	
" " Vancouver College	. 2S	
" " Victoria College	12	
		460
Students in Applied Science:—	0	
Undergraduates	. 328	
Partial Students	. 47	400
		402
Students in Law	*	29
Students in Medicine:—		
Undergraduates	. 349	
Conditioned Students	. I.4	
Partial Students		
		372
·		1,263
Deduct repeated in different Faculties		24
Total		1,239

# University and Graduates' Societies.

# Alma Mater Society.

The Alma Mater Society is the medium of communication between the University authorities and students and the general public. It has been formed to deal with matters affecting the general body of students and to promote academic unity.

(Officers 1905-1906.)

President—F. G. Wickware, Sci., '06. Vice-President—D. L. McDonald, Arts, '07. Secretary—Miss M. L. Rorke, Arts, '06. Treasurer—W. B. Hunter, Med., '08.

# Undergraduates' Literary Society.

(Officers 1906-1907.)

Hon. President—Principal Peterson.

President—F. M. Auld, Arts, '07.

1st Vice-President—W. H. Cherry, Arts, '07.

2nd Vice-President—R. W. Ellis, Arts, '07.

Secretary—O. S. Tyndale, Arts, '08.

Treasurer—N. R. Gillis, Arts, '08.

Treasurer—N. R. Gillis, Arts. 'oS.
Reporters—H. T. Logan, Arts, 'oS; R. C. Stewart, Arts, 'oS.
Councillors—G. V. Cousins, Arts, 'o6; E. B. Rider, Arts, 'o7; D. A.
Cameron, Arts, 'o7; A. G. McGougan, Arts, 'o8; S. Le Mesurier,
Arts, 'o9.

I. U. D. L. Representatives-Dr. S. B. Leacock; W. L. Carr, Arts, 'o6.

# Applied Science Undergraduates' Society.

(Officers 1905-1906.)

President—A. K. MacCarthy. Vice-President—G. A. Johnstone. Secretary—H. A. Wheaton.

# McGill Medical Society.

(Officers 1906-1907.)

Hon. President—Dr. F. J. Shepherd.

President—S. B. Fraser, '07.

Vice-President—J. W. Thomson. '07.

Secretary—J. W. Arbuckle, '08.

Treasurer—K. M. Wilson, '08.

Asst.-Secretary—C. J. Davis, '09.

Reporter—L. H. Trufant, '07.

Pathologist—G. E. Lannin, '07.

Councillors-Dr. W. L. Barlow, Dr. E. W. Archibald and F. C. Clarke, '07.

# Law Undergraduates' Society.

(Session 1905-1906.)

President—Walter S. Johnson, B.A., '06. Vice-President—J. J. Creelman, B.A., '07. Treasurer—R. T. Stackhouse, '06. Secretary—A. W. Cameron, B.A., '08.

### Cercle Français.

(OFFICERS 1905-1906.)

Hon. President—Sir W. C. Macdonald.

President—G. Barclay, Arts, '06.

1st Vice-President—F. M. Auld, Med., '09.

2nd Vice-President—S. C. Swift, Arts, '07.

Secretary-Treasurer—R. O. McMurtry, Law, '08.

Committee—W. Cherry, Arts, '07; L. A. Coulin, Science, '09; O. S.
Tyndale, Arts, '08.

# Physical Society.

(Officers 1905-1906.)

President—Professor John Cox.
Vice-President—Professor E. Rutherford.
Secretary—R. K. McClung, M.A.
Committee—Dr. Barnes, Dr. Walker and Dr. Stansfield.

# Chemical Society.

(Officers 1906-1907.)

President—Dr. J. W. Walker.
..Vice-President—Dr. D. McIntosh.
..
Sceretary-Treasurer—Mr. N. N. Evans, M.A.Sc.
Executive—Dr. Walker; Dr. McIntosh; Mr. Evans; Dr. Barnes;
Mr. J. R. Roebuck.

### Historical Club.

(Officers 1906-1907.)

President—O. B. McCallum, Arts. '07.
Vice-President—I. O. Vincent, Arts, '07.
Secretary—L. G. Dennison, Arts. '09.
Treasurer—E. B. Rider, Arts, '07.
Committee—C. W. Colby, Ph.D.; S. B. Leacock, Ph.D.; G. V. Cousins, B.A.

# Delta Sigma Society.

(Officers 1906-1907.)

President—Miss J. B. Wisdom, '07.
Vice-President—Miss A. M. McNaughton, '08.
Secretary-Treasurer—Miss D. McLeod, '09.
Reporter—Miss K. Trenholme, '09.

Committee—Miss H. Kidd, '07; Miss B. Wisdom, '08; Miss Alice Massé, '09.

# Young Men's Christian Association of McGill University.

. Membership. — The Membership of the Association consists of graduates and students of McGill University, or of the affiliated Colleges.

All are welcomed as Associate members; the active membership

comprises those who are Church members.

The home of the Association is Strathcona Hall, which, in addition to affording ample accommodation for the work of the Association as a whole, provides residence for sixty men.

Full particulars regarding the work of the Association are given in the annual Hand Book, and will also be supplied by the Secretary of

the Association.

### (Officers 1906-1907.)

Hon. President—Dr. Alex. Johnson.

President—A. L. McLennan, B.A. (Queen's), Med., '07.

1st Vice-President—F. W. Bates, Arts, '07.

2nd Vice-President—F. E. Lathe, B.A., App. Sci., '07.

Treasurer—M. G. Brooks, Arts, '08.

Assistant-Treasurer—O. B. MacCallum, Arts, '07.

Recording-Secretary—G. B. Murphy, B.A. (Queen's), Med., '08.

General-Secretary—Macfarlane B. Davidson, M.A.

### CHAIRMEN OF COMMITTEES.

Bible Study—C. W. Davis, Arts, '07.
Finance—M. G. Brooks, Arts, '08.
House—W. L. Carr, Arts, '06, App. Sci., '09.
Library—G. B. Murphy, B.A. (Queen's), Med., '08.
Membership—F. W. Bates, Arts, '07.
Missions—F. E. Lathe, B.A., App. Sci., '07.
New Students—M. B. Davidson, M.A.
Religious Mectings—R. B. Dexter, B.A. (Acadia), Med., '08.
Social—W. G. Brown, B.A., App. Sci., '07.

STUDENT REPRESENTATIVES TO THE ADVISORY COMMITTEE.

W. Stewart, B.A. Law, '08. G. Raphael, App. Sci., '08.

# Young Women's Christian Association of McGill University.

(Officers 1906-1907.)

Honorary-President-Mrs. F. Adams. President-Charlotte Cheesbrough, '07. Vice-President-Arma Smillie, 'oS. Corresponding-Secretary-Edith Mowatt, '06. Recording-Secretary-Gertrud Schafheitlein, '09. Treasurer-Vera Telier, '09. Reporters-Bessie Wisdom, '08; Amy Dolbel, '08.

### Athletic Association.

(OFFICERS 1906-1907.)

President—O. S. Waugh, Med., '08. Vice-President-F. M. Davis, Sci., '08. Secretary-A. H. Beckwith, Sci.

# Rugby Football Club.

(Officers 1006-1007.)

Hon. President—Prof. C. H. McLeod. Hon. Treasurer—Dr. J. M. Elder. President—A. H. Beckwith, Sci.

President—A. H. Beckwith, Sci.

Vice-President—H. G. Zimmerman. Sci., '08.

Secretary—W. W. G. McLachlin, Med., '07.

Treasurer—E. Winslow, Sci., '08.

Captain—G. F. Stevens, Med., '07.

Representatives—Medicine: W. Callaghan, '08; F. Quinn, '07.

Science—O. M. Stitt, '08; C. C. Ross, '08. Arts—F. S. McDougall, '07; H. McLennan, '09. Law—J. J. Creelman, '07; R. O. McMurty, '08.

### Association Football Club.

(Officers 1006-1007.) Hon. President-Prof. C. H. McLeod. President-R. H. Patterson, Sci., '07. Vice-President-M. G. Hepburn, Sci., '07. Secretary-J. B. Baird, Sci., '08. Treasurer—A. G. McGougan. Arts, '08. Captain—S. W. Werner, Sci., '08. Manager—F. M. Davis, Sci., '08.

Committee-W. M. B. Macdonald, Sci., '07; A. H. Carnell, Med., '08; W. Steedman, Arts, '08.

27 Track Club.

> Hon. President-Dr. F. W. Harvey. Hon. Treasurer-Dr. J. M. Elder. President-Geo. T. Wilson, Arts. '07. Vice-President-R. A. Donahue, Med., 'oS. Secretary—A. L. Cattanach, Arts. '07. Treasurer—E. S. McDougall, Arts. '07.

# Hockey and Skating Club.

(Officers 1905-1906.)

Hon. President—Dr. J. M. Elder.
President—E. A. Lindsay, Med., '06.
Vice-President—G. A. Stephens, Med., '07.
Secretary—A. L. Spafford, Sci., '07.
Treasurer—J. A. Flanders, Arts, '06.
Manager—G. E. McCuaig, Sci., '06.
Captain—H. L. Gilmour, Sci., '06.

### Basket Ball Club.

(Officers 1905-1906.)

President—E. E. Locke, Med., '07.
Vice-President—B. F. Higgins, Sci., '06.
Secretary-Treasurer—O. B. McCallum, Arts, '07.
Manager—D. Ross, Sci., '06.
Committeeman—O. B. Keddy, Med., '06.

# Boxing Club.

(Officers 1906-1907.)

Hon. President—Dr. F. W. Harvey.

President—C. N. Crutchfield, Arts, '07.

Vice-President—W. T. Hand. Med., '07.

Secretary—G. H. Davis, Sci., '07.

Treasurer—C. G. Heward, Arts, '07.

Committee—E. Gray, Med., '07; D. McLean, Sci., '09; H. T. Mel-

drum, Arts, '07.

### Rifle Club.

Hon. President—Dr. H. M. Tory.

Hon. Vice-Presidents—Dr. Ruttan and Dr Gregor.

Hon. Secretary—Prof. Nobbs.

Hon. Captain—Lt. Col. Burland.

Captain—W. H. Hargrave, Sci., '07.

Lieutenants—C. M. Ross, Sci., '08; A. G. McGougan, Arts, '08.

Squad Sergeants—J. H. Taylor, Med., '08; G. McCallum, Sci., '07;

J. A. Allan, Arts, '07; J. De Lancey, Sci., '08.

Secretary-Treasurer—C. N. Crutchfield, Arts, '07.

# Cricket Club.

(Officers 1906-1907.)

President—Dean Moyse.

Vice-President—A. R. Oughtred, K.C.

Captain—W. Crosby Baber.

Secretary—H. A. Jones, 30 Park Ave.

Treasurer—F. M. Davis.

Committee-Messrs. A. B. Wood, McLaghlan, Richards, Sharman and Lomer.

### Lawn Tennis Club.

(Officers 1905-1906.)

Hon. President-J. D. G. MacCallum, Med., '06. President—G. S. Raphael, Sci., '08.
Vice-President—W. R. Hastings, Arts, '08.
Secretary—W. H. Gordon, Arts, '09.
Treasurer—A. Kingman, Arts, '08.

# Wrestling Club.

(Officers 1906-1907.)

Hon. President—W. J. Jacomb.

President—J. A. Allen, Med., '08.

Vice-President—E. H. Gray, Med., '07.

Secretary—D. M. Mathieson, Sci., '07.

Treasurer—T. E. Wilson, Arts, '09.

Committee—R. P. Wright, Med., '07; G. S. Ramsay, Arts, '08;

B. Renaud, Sci., '07.

Committee to draw County in

Committee to draw Constitution — J. A. Allan, Med., '08; L. O. Brown, Sci., '07; C. N. Crutchfield, Arts, '07.

### R. V. C. Athletic Club.

(Officers 1906-1907.)

Hon. President-Miss E. Fotheringham. Hon. Vice-President-Miss C. Lichtenstein. President-Esther Macanlay, '07. Vice-President-Katie McDiarmid, '08. Secretary-Treasurer-Kathleen Cains, '09. Capt. of Basketball Club-Ida Couture, '07. Capt. of Hockey Club-Helen Kydd, '07. Capt. of Tennis Club-Edith Mowatt, '07.

# Glee and Banjo Club.

(Officers 1906-1907.)

Hon. President-Sir W. C. Macdonald. Hon. President—Sir W. C. Macdonald.

Hon. Vice-President—B. J. Harrington, M.A., LL.D.

President—M. G. Brooks, Arts, '07.

Vice-President—W. G. Brown, Sci., '07.

Secretary—S. J. Crocker, Sci., '08.

Business Manager—G. V. Cousins, Arts, '06.

Asst. Business Manager—R. D. Harrison, Arts, '07. Committee-D. Manny, Sci., '08; J. G. Hindley, Arts, '07; A. Hill, Med., '07.

# Western Club of McGill University.

This Club has for its objects the furthering of the interests of McGill in the four western provinces and the helping of new students

from these provinces.

Students from Manitoba, Saskatchewan, Alberta, or British Columbia coming to McGill for the first time are requested to communicate with the secretary of the Club at Strathcona Hall, Montreal.

(Officers 1906-1907.)

Hon. President-Dr. H. M. Tory. President—Geo. T. Wilson, Arts, '07.
Vice-President—W. J. Dick, Sci.. '08.
Secretary-Treasurer—R. W. Ellis, Arts, '07.

# Alumnae Society of McGill University.

(Officers 1906-1907.)

President—Elizabeth A. Hammond, M.A.

Vice-Presidents—Kate M. Campbell, B.A.; Helen L. Freeze, B.A.;

Kathleen E. Finley, B.A.; Agnes S. James, B.A.

Recording Secretary—Euphenia L. McLeod, B.Sc. Asst. Rec. Secretary-Mary S. Idler, B.A. Treasurer—Bella Marcuse. M.Sc.

Asst. Treasurer—Rosebud E. Michaels. B.A.

Corresponding Secretary—Susan E. Cameron, M.A. Asst. Corresponding Secretary-Catherine McKenzie, B.A.

# Ottawa Valley Graduates' Society.

(Officers 1906.)

Hon. President—The Right Hon. Sir Wilfrid Laurier, P.C.,

K.C.M.G., LL.D.

President—A. W. Harris, D.V.S.

1st Vice-President—W. B. Dawson, M.A., Ma.E., D.S.c. 2nd Vice-President-Wm. Gamble, B.A., B.C.L. 3rd Vice-President—Dr. W. I. Bradley. Treasurer—A. S. McElroy, M.D.

Secretary—J. E. Craig, M.D.
Council—R. J. Wicksteed, M.A., B.C.L.; Rev. F. A. Allen, B.A.;
Wm. Young, B.Sc.; R. W. Ells, M.A., LL.D.; D. E. Winter, M.D.

# New York Graduates' Society.

(Officers 1906.)

President—Hiram N. Vineberg, M.D., C.M. 1st Vice-President—Harcourt Bull, B.A., B.C.L. 2nd Vice-President—James A. Meek, M.D., C.M. Treasurer—Wm. Ferguson, M.D., C.M.

Secretary—F. T. Bacon, B.A.Sc., 13 Park Row, New York.

Governors—W. E. Deeks, M.A., M.D.; H. J. Schwartz, M.D., C.M.;
F. H. Miller, D.V.S.; J. G. Saxe, B.A., I.L.B. (Columbia); H. C.

Heine, B.A., LL.B. (N.Y. Univ.); H. A. Coussirat. B.Sc.

Non-Resident Councillors—Prof. The Rev. J. C. Bracq, M.A. (Vasser College, N.Y.); The Rt. Rev. J. D. Morrison, M.A., D.D. (Bishop of Duluth); R. T. Irvine, M.D. C.M. (Ossining, N.Y.); Rev. Donald

Duluth); R. T. Irvine, M.D., C.M. (Ossining, N.Y.); Rev. Donald Guthrie, B.A., D.D. (Baltimore, Md.); R. Tait Mackenzie, B.A., M.D. (Univ. of Penna., Philadelphia); J. B. Harvie, M.D., C.M.

# New England Graduates' Society.

President—Arthur E. Childs, M.Sc. (Boston, Mass.).

1st Vice-President—George A. Fagan, M.D. (North Adams, Mass.).

2nd Vice-President—Ambrose Choquet, B.C.L. (Central Falls R.I.).

3rd Vice-President—H. Holton Wood, B.A. Boston, Mass.).

Secretary-Treasurer—Joseph Williams, M.D. (12 Bloomfield Street,

Dorchester, Mass.).

Councillors-T. G. McGannon, M.D. (Low-II. Mass.): Miles Martin, M.D. (Boston, Mass.); W. W. Goodwin, M.D. (East Boston, Mass.); R. T. Glendenning, M.D. (Manchester-by-the-Sea, Mass.); Joseph C. Pothier, M.D. (New Bedford, Mass.); J. G. Piersick, D.V.S. (Shelburn Falls, Mass.).

# Graduates' Society of the District of Bedford.

(Officers 1906.)

Hon. President-Hon. Justice Lynch (Knowlton). President-Dr. R. C. McCorkill (Farnham). Vice-Presidents-Dr. J. B. Comeau (Farnham); Dr. N. M. Harris (Knowlton); Dr. S. H. Martin (Waterloo). Secretary-Treasurer-Dr. M. R. Slack (Farnham).

# The British Columbia Graduates' Society.

President—S. J. Tunstall, B.A., M.D. (Vancouver).

Vice-Presidents—H. M. Robertson, M.D. (Victoria); W. F. Drysdale, M.D. (Nanaimo); J. M. Gregor, B.A., B.Sc. (Slocan); Peter A. McLellan, M.D. (Nelson); J. H. King, M.D. (Cranbrook).

Secretary-Treasurer—W. J. McGuigen, M.D. (Vancouver). Associate Secretary-G. W. Boggs, M.D. (P.O. Box 653, Vancouver). Executive Committee-A. E. Hill. B.Sc. (New Westminster); W. B. Burnett, B.A., M.D. (Vancouver); A. L. Kendall, M.D. (Cloverdale); E. Newton Drier, M.D. (Vancouver); J. B. Hart, D.V.S. (Vancouver); J. C. Shaw, M.A. (Vancouver).

# McGill Graduates' Society of Toronto.

(Organized 1896.)

(Officers, 1902.)
President—A. R. Lewis, K.C. 1st Vice-President-Rev. Canon Sweeny, M.A., D.D. 2nd Vice-President-H. C. Burritt, M.D. Secretary-Treasurer-R. B. Henderson, B.A., 48 King Street, West. Committee-Hamilton Cassels, B.A.; Willis Chipman, B.A.Sc.; P. E Ritchie, B.A.



# McGill University.

# DEGREE AND SESSIONAL EXAMINATIONS. 1905-1906.

# Faculty of Law.

### TRIRD YEAR (GRADUATING CLASS).

### HONOURS.

(In order of merit. Students of equal standing are bracketed together.)

Couture, G. C. Papineau, B.A.—Elizabeth Torrance Gold Medal, First Rank Honours and Prize of \$50,00. Shallow, T. J., B.A.—First Rank Honours and Prize of \$50,00. Sperber, M. M.—Second Rank Honours.

#### PASSED FOR THE DEGREE OF B.C.L.

(In order of merit.)

Couture, G. C. P., B.A. Shallow, T. J., B.A. Sperber, M. M. Legault, J. L. L. Shepherd, S. J. Stackhouse, R. F. (Calder, R. L., B.A. Tanner, A. H. Mathieu, A. P., B.A. Johnson, W. S., B.A. (also nassed) (also passed). McKenna, F. E., B.A.

# STANDING IN THE SEVERAL SUBJECTS.

(Subjects alphabetically arranged.)

## AGENCY, PARTNERSHIP AND CORPORATIONS.

Couture: Sperber and Shallow, equal; Legault and Johnson, equal; Shepherd: Tanner and Calder, equal; Stackhouse, Mathieu,

### COMMERCIAL LAW.

Conture, Shallow, Shepherd, Sperber; Mathieu and Legault, equal-Tanner, Stackhouse, Calder, Johnson,

### CONSTITUTIONAL LAW.

Shallow, and Couture, equal; Legault, Calder, Shepherd, Johnson, Sperber, Stackhouse, Mathieu, Tanner.

### CRIMINAL LAW.

Conture. Shallow, Sperber. Johnson, Shepherd, Stackhouse, Tanner; Calder and Legault, equal; Mathieu.

### INTERNATIONAL LAW.

Couture, Shallow, Stackhouse, Legault. Shepherd, Calder; Johnson and Mathieu, equal; Sperber, Tanner.

### MARRIAGE COVENANTS, PRESCRIPTION, ETC.

### (Prof. Fortin).

Couture, Shallow, Legault, Sperber, Mathieu, Calder, Johnson, Tanner, Shepherd, Stackhouse.

## MARRIAGE COVENANTS, PRESCRIPTION, ETC.

### (Prof. Geoffrion).

Shallow, Sperber, Couture, Legault, Mathieu, Stackhouse, Tanner; Calder and Shepherd, equal; Johnson.

### OBLIGATIONS.

Couture, Shallow, Sperber, Caller: Shepherd and Stackhouse, equal; Johnson and Tanner and Legault, equal; Mathieu.

### PROCEDURE.

Shallow, Couture. Sperber: Stackhouse and Mathieu, equal; Tanuer, Legault, Srepherd, Calder, Johnson.

### REAL PROPERTY LAW.

Couture, Shallow, Sperber, Tanner, Shepherd, Mathieu, Legault, Stack-house, Johnson, Calder.

### ROMAN LAW.

Shallow. Couture, Stackhouse; Johnson and Sperber, equal; Legault and Shepherd, equal; Calder. Mathieu, Tanner.

### SUCCESSIONS, GIFTS, SUBSTITUTIONS.

Couture, Shallow, Shepherd; Tanner and Stackhouse, equal; Legault, Calder, Mathieu, Sperber, Johnson.

### SECOND YEAR

### HONOURS.

Walker, J. H. E., B.A.—First Rank General Standing and Prize of \$25.00.

### PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit.)

Girouard, J. A.; Diffon, J. II. and Parkins, E. R., B.A., equal; Creelman, J. J., B.A.

### STANDING IN THE SEVERAL SUBJECTS.

CIVIL PROCEDURE.

Walker, Girouard, Creelman, Parkins, Dillon.

CRIMINAL LAW.

Girouard; Creelman and Parkins, equal; Walker, Dillon.

COMMERCIAL LAW.

Walker, Girouard, Parkins, Creelman, Dillon.

GIFTS AND SUBSTITUTIONS.

Walker, Parkins, Creelman, Dillon, Girouard,

INTERNATIONAL LAW.

Walker, Dillon, Parkins; Creelman and Girouard, equal,

MARRIAGE COVENANTS.

Walker, Dillon, Girouard, Parkins, Creelman.

PARTNERSHIP AND AGENCY.

Walker, Creelman, Dillon, Parkins, Girouard.

REAL PROPERTY LAW.

Walker, Girouard, Dillon, Parkins, Creelman.

### FIRST YEAR.

#### HONOURS.

Stewart, William, B.A.-First Rank General Standing, Scholarship of \$100.00, and First Prize in Roman Law.

Stewart C. S., B.A.—First Rank General Standing, Scholarship of \$100,00, and Second Prize in Roman Law.

### PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit),

Stewart, W., B.A.; Stewart, T. S., B.A.; Ballon, I.; Cameron, A. W., B.A.; Hyde, G. G., B.A.; Jenkins, J., B.A.; McMurtry, R. O., B.A.

### STANDING IN THE SEVERAL SUBJECTS.

### CIVIL PROCEDURE.

Stewart, W., Stewart, T. S., Hyde, McMurtry, Cameron, Ballon, Jenkins.

### CONSTITUTIONAL LAW.

Stewart, W., Stewart, T. S., Jenkins, Hyde, McMurtry, Cameron, Ellis, Ballon, DeBeck.

### LEGAL HISTORY.

Stewart, T. S., Cameron, Stewart, W., Ballon, Hyde, Jenkins, McMurtry.

### OBLIGATIONS.

Ballon, Cherry, Stewart, W., Stewart, T. S., Cameron, Jenkins, Hyde, McMurtry.

### PERSONS.

Stewart, W., Stewart, T. S., Hyde, McMurtry, Cameron, Ballon, Jenkins.

### REAL RIGHTS.

Stewart, W., Ballon, Stewart, T. S., Hyde, McMurtry, Cameron, Jenkins.

### ROMAN LAW.

Stewart, T. S.; Cherry and Stewart, W., equal; Ballon and Cameron, equal; Jenkins, Hyde, McMurtry.

# McGill University

# DEGREE AND SESSIONAL EXAMINATIONS. 1905-1906.

# Faculty of Arts.

PASSED FOR THE DEGREE OF B.A.

IN HONOURS.

(In Alphabetical Order.)

First Rank.—Cousins, George V.

MacLeod, Alex. R.

McTaggart, Donald E.

Naylor, R. Kenneth.

Peterson, William G.

Ryan, Esther L.

Rogers, David B.

Second Rank.—Barclay, Gregor,
Drew, John McO,
Gibb, Robertson W.
Kirsch, Simon,
Rorke, Mabele,
Shaw, Herbert T.
Vineberg, Solomon.

PASSED FOR THE DEGREE OF B.A.

(In order of mera. Students of equal standing are bracketed together.)

Class I.—DeBeck, E. K.
Smith, A. A.
Honsser, G. E.
Class II.—Eckhardt, J.
Lyman, S.
{ Carr, W. L.
{ Clarke, B. M.
Phelps, M. G.
Payne, C. II.
McQueen, K. H.
Nicholson, J. C.
Fraser, M.
Class III.—Fraser, A. B.

Class III.—Fraser, A. B.
Braidwood, H.
Mundie, G. S.
Mowatt, E. R.
Newman, H.
Gillmor, B.
Stanton, R. G.

Flanders, J. A.
Mendry, J. A.
Scott, C. H.
Marcuse, O.
Smith, C. A.
Edwards, W.
Kimber, V. C.
Aegratat.—Crocker, S. J.

PASSED FOR THE DEGREE OF B.SC IN ARTS.

Class I.—Lewis, D. S.
Sharpe, F. E.
Gates, R. R.
Class III.—None.
Class III.—None.

DOUBLE COURSE IN ARTS AND APPLIED SCIENCE.

Perry, K. M.

BACHELORS OF ARTS PROCEEDING TO THE DEGREE OF M.A. IN COURSE.

Brown, Rev. W. G. Chodat, 11.
Cox, K. A.
Davidson, M. B.
Day, F. J.
Henry, Edna.
Mingie, G. W.
Smith, Esther.

BACHELOR OF ARTS PROCEEDING TO THE DEGREE OF M.SC. IN COURSE Lloyd, S. J.

BACHELOR OF SCIENCE PROCEEDING TO THE DEGREE OF M.SC. IN COURSE Boehner, R. S.

MASTÈR OF ARTS PROCEEDING TO THE DEGREE OF D.SC. IN COURSE.

McClung, R. K.

ADMITTED TO THE DEGREE OF LL.D. HONORIS CAUSA.

Barclay, Rev. James, D.D.

# FOURTH YEAR (GRADUATING CLASS).

HONOURS.

(Subjects arranged alphabetically.)

In Biology.

Kirsch, Simon.—Second Rank Honours, Drew, John McO.—Second Rank Honours.

# In Classics.

Macleod, Alex. R.—First Rank Honours and Chapman Gold Medal, Peterson, William G.—First Rank Honours Naylor, R. Kenneth, First Rank Honours. Gibb, Robertson W. Second Rank Honours

In English Language and Literature.

Ryan, Esther L. First Rank Honours and Shakespeare Gold Medal.

In History and L'eonomics.

McTaggart, Donald E .- First Rank Honours. Cousins, George V.- First Rank Honours. Shaw, Herbert. Second Rank Honours. Barelay, Gregor. Second Rank Honours. Vineberg, Solomon. Second Rauk Honours.

In Mathematics and Natural Philosophy.

Rorke, Mabele, Second Rand Honours,

In Modern Languages.

Graduate Student:-Henry, Edna.-First Rank Honours.

In Mental and Moral Philosophy.

Rogers, David B. First R nk Honours, and Special Prize.

First Rank General Standing.

(1) B.A. Course.

DeBeck, Edwin K.—Special Certificate. Smith, Arthur M.—Special Certificate Housser, George E.—Special Certificate.

# (2) B.Sc. Course.

Lewis, David S.—Special Certificate, and Special Prize in Chemistry

Sterry Hunt Scholarship.
Sharp, Florence E.—Special Certificate, and Special Prize in Botany.
Gates, Reginald R.—Special Certificate, and Special Prize in Botany.

# THIRD, YEAR

# HONOURS.

| Vincent, Irving.—First Rank Honours in Classics. Prize in Latin.

Huxtable, M.-First Rank Honours in Classics.

Gould, E. M. L.—First Rank Honours in Classics, Crawford E. First Rank Honours in Classics, Cheesbrough, C. M.—First Rank Honours in English Language and Literature.

MacCallum, O. B. First Rank Honours in History and Economics, Parsons H. G. First Rank Honours, and Prize in Mental and Moral Philosophy.

Eaton, Mary J. Second Rank Honours in English Lauguage and Literature.

Riley, C. E. Second Rank Honours in English Language and Literature.

Harrison, R. D.-second Rank Honours in English Language and Literature.

Stanton, M. C .- Second Rank Honours in English Language and Literature.

Armstrong, G. D.-Second Rank Honours in English Language and Literature.

Penny, E. G. T.—Second Rank Honours in Latin and French,
James, Ethel.—Second Rank Honours in Mathematics.
Bates, F. W.—Second Rank Honours in Mathematics.
Huntley, H. W.—Second Rank Honours in Mental and Moral Philosophy, Prize in Semitic Languages.
Laverock, L.—Second Rank Honours in Mental and Moral Philosophy.
Couture, Ida.—First Rank Honours in Modern Languages.
King, L. J.—First Rank Honours in Modern Languages.
Swift, S. C.—First Rank Honours in Modern Languages.

# PASSED THIRD YEAR EXAMINATIONS.

# FOR COURSE LEADING TO B.A.

(Arranged in Alphabetical Order.)

Allen, Armstrong (G. D.), Armstrong (L.), Ballon (I.), Bartels, Bates, Baylis, Cameron, Cattanach, Cheesbrough, Cherry, Cliff, Coates, Couture, Crawford, Crutchfield, Cushing, Davis, Eaton, Ellis, Gould, Harrison, Hayden, Heward, Huntley, Huxtable, James, King, Kidd, Laverock, Macaulay (E.), MacCallum, MacQueen, Macdonald, McDougall, MacMillen, Masson, Massy, Meldrum (s), Mowatt, Parker, Parsons, Penny, Price, Rider, Riley, Stanton, Swift, Vincent. Walker, Williams (s), Wisdom.

Aegrotat.-McKenzie.

MEMBERS IN ARTS, REGISTERED IN MEDICAL FACULTY, WHO WILL BE QUALIFIED TO ENTER THE FOURTH YEAR ARTS ON COMPLETING THEIR MEDICAL YEAR.

Auld, Ballon (D. H.), Wilson.

# SECOND YEAR.

## HONOURS.

McClughan, Ellen. (Vancouver High School)-First Rank Honours and Prize in Animal Biology; First Rank General Standing; Prize in German.

Steedman, W. F. (Private Tuition)—First Rank Honours in English Language and Literature; First Rank General Standing.

Sauvalle, G. (Montreal High School for Girls)-First Rank Honours in French.

Tyndale, O. S., Feller Institute (Grand Ligne)—First Rank Honours in French; First Rank General Standing; Prize in Latin; Prize

in French; Prize in Political Economy.

Logan. H. T. (Vancouver College)—First Rank Honours in Latin: First Rank Honours and Prize in Greek; First Rank General Standing.

Smith, Annie (Montreal High School)-First Rank Honours in Latin;

Second Rank Honours in Greek.
Shaw, A. N. (Montreal High School)—First Rank Honours and Prize in Mathematics; First Rank General Standing; Prize in Physics.

<sup>(</sup>s) Supplemental in one subject.

Gillis, H. R. (Prince of Wales Coll., Charlottetown, P.E.I.) -- First Rank Honours and Prize in Mathematics; First Rank General Standing; Prize in Physics.

Boyle, Gertrude M. (Glen-Mawr School, Toronto) First Rank Honours

in Mathematics.

McGougan, A. G. (Glencoe High School, Untario) First Rank Honours and Prize in Mental and Moral Philosophy; First Rank General Standing.

Machaughton, A. M. (Girls' High School, Montreal) - Second Rank Honours in English Lauguage and Literature; Third Rank

Honours in Latin.

Wisdom, B. B. (St. John High School, N.B.) - Second Rank Honours

in English Language and Literature. Plaisted, G. M. (Dunham Ladies' College, P.Q.) - Second Rank Honours

In Latin: Second Rank Honours in French.

Ross, Lilia I. (Hamilton Coll. Inst. t Second Rank Honours in Latin. Younger, M. (Montreal High School for Girls)—Second Rank Honours in Modern Languages

Bouchard, T. C. (Montreal High School for Girls) - Third Rank Hon-

ours in Latin, Hawkins, F. E. (Quebec High School)—Prize in English, Kingman, Abner (Montreal High School)—First Rank General Standing: Prize in Political Economy. Rice, E. L. (Congregational College)—Prize in Semitic Languages.

Paterson, E. R. (Montreal High School) -First Rank General Standing.

# PASSED THE SECOND YEAR ENAMINATIONS.

# (1)—FOR COURSE LEADING TO B.A.

Class I.—Shaw, Gillis, McGougan, Tyndale, Logan, Patterson, McClughan, Steedman, Kingman, Class H.—Boyle, Hawkins, Smith, Rice, Plaisted, Yates.; Emerson.; Pearson; Maclean, Lindsay, Machanghton, Younger Greenshields; Smillie and Wisdom. equal; Fe czewicz, Bouchard, Ross, Elliott, Class III. Stone, 2 Waterston, Dolbel; Ramsay and Shanks, equal; Becker, 2 Libby, + Gibbios, ± Aver McQneen, Hastings, Simpson (A) (s), Holden, McDougall, Chandler, Cresswell, Penny, Macdiarmid, MncBurney, Sauvalle (s), Fineberg (s) Mackeen (s), Timberlake, Randal # (s), Ish rwood (s), Patrick (s).

## (2)—FOR COURSE LEADING TO B.SC.

Class I.—None. Class II.—None. Class III. Auchinleck (st. Stewart.

### FIRST YEAR.

# HONOFRS.

Hatcher, Albert G. (Alethodist College, St. John's, Nfld.) - First Rank Honours in Mathematics; First Rank Honours in Latin; First Rank General Standing; Prize in Latin; Prize in Greek; Prize

Estabrooks, Florence C. (St. John High School, St. John, N.B.)— First Rank Honours in Latin; i'list "ank General Standing; Prize in Latin; Prize in English; Prize in Greek; Coster Memo-

rial Prize.

Dennison, Lawrence G. (Montreal High School) First Rank Honours in Mathematics: First Rank Henours in Latin.

<sup>(</sup>x) Supplemental in our subject.

Stanstead College.

<sup>\*</sup>Vancourer College.

Townsend, Charles L. (Crichton School)—First Rank Honours in Latin; First Rank General Standing; Prize in Latin; Prize in German; Prize in French.

Willis, F. Dorothy (Harmon School, Ottawa)—First Rank Honours in Latin.

Cockrell, Katherine M. Victoria College, Victoria, B.C.)—First Rank Honours in Latin.

Cushing, Charles (Montreal High School)—First Rank Honours in Latin.

MacDonald, Jessie (Trafalgar Institute)—First Rank Honours Latin.

Sproule, Stanley M. (Montreal High School)—Second Rank Honours in Mathematics.

Schafheitlin, Gertrud (Montreal High School)—First Rank General Standing; Prize in Physics.

Murphy, A. Winnifred (Montreal High School)—Prize in Greek.

Tremblay, Joseph A. (Feller Institute)—Prize in French.

# PASSED THE SESSIONAL EXAMINATION.

# (1) For Course leading to B.A.

Class I.—Estabrooks, Hatcher, Townsend. Class II.—Willis, Thompson,‡ Cockrell, Dennison and McDonald (J.), equal; Cameron, Lyman, Clouston. Bruncau, Gliddon. Hawkins, Jones,‡ Cushing. Sproule, Murphy, Pedley, Fleet, LeMesurier, Slattery (s), Packard. Class III.— Surprenant, Tremblay, Cheesbrough, Wilson (T. E.), Geggie, Baxter,\* MacKenzie, Vipond, Shannon, Hale, Telfer, Cunningham\* (s), Gordon, Howell‡; Canegata and Elliott and MacKinnon‡, equal; Richardson (8). Waterston, Mavety and Corbett, equal; Massé, Philip‡, Pringle, Anderson‡ (s), and Price‡ (s), equal; Hindley (W. W.) (s), McGibbon (s), Plimsoll (s), Snith (s), Fisher (s), Carey (s), Drummond (s), Rennoldson (s), Thorne (s), Greene‡ (s).

# (2) For Course leading to B.Sc.

Class I.—Schafheitlin.

(3) For Course leading to B. Arch.

Class I.—None. Class II.—None. Class III.—Fetherstonhaugh.

# FOURTH YEAR.

# ASTRONOMY

Class I.—None. Class II.—Smith (C. A.). Class III.—None.

# BOTANY

Class I.—Gates, Sharpe, Kirsch, Drew. Class II.—None. **Ulass** III.—None. CHEMISTRY (SPECIAL COURSE).

Class I.—Lewis.

CHEMISTRY.

Class I.—Sharpe, Gates.

<sup>(8)</sup> Supplemental in one subject.

<sup>†</sup>Stanstead College.

tVancourer College.

<sup>\*</sup>Victoria College.

#### CONSTITUTIONAL LAW.

Class I .- None. Class II. None. Class III. DeBeck.

## FNGLISH COMPOSITION.

Class I.—Clark, Eckhardt, DeBeck, Class II. Fraser (M.) and Ryan, equal; Fraser (A.), Flanders and Phelps and Sharp, equal; Housser, Lewis and McQueen, equal; Scott and Smith (A. N.), equal; Mowatt, Edwards and Braidwood, equal; Newman, Class III.—Payue, Gnimor, Lyman and Stanton, equal; Smith (C. A.), Marcuse, Pease, Mundie, Crocker and Nicholson, equal; Hendry, Perry, Carr.

# ENGLISH LITERATURE (COMBINED COURSES).

Class I.—Housser and Ryan, equal. Class 11.—Phelps, Eckhardt, Scott, Lyman and Clarke, equal; Payne and Mowait, equal; Fraser (M.), Flanders, Class III.—Fraser (A.), Newman, Braidwood and Hendry, equal; Marcuse and Mundie and Stanton, equal; Edwards and Kimber, equal.

### PHYSICS.

# (1) Electricity and Magnetism.

Class I.—None. Class II.—Crocker. Class III.—Hendry. Flanders.

(2) Sound, Light and Heat.

Class 1.—Carr. Class II.—Perry. Class III.—None.

## FRENCH.

Class I.—Henry, Baynes. Class H.—Scott, Gillmor and McQueen, equal. Class HI.—None.

# GEOLOGY.

Class I.—Lyman, Carr. Class II.—Kimber, Newman, Class III.—Marcuse, Nicholson.

# GERMAN.

Class I.—Henry. Class II.—None. Class III.—Clark, Fraser (M.).

## GREEK.

Class I.—Macleod, Peterson, Gibb and Naylor, equal. Class II.—None. Class III.—Edwards, Smith (C. A.).

### HEBREW AND ARAMAIC.

Class I.—None. Class II.—Nicholson. Class III.—None.

# HISTORY.

Class I. Noue, Class II.—Phelps, Traser, Mundie, Braidwood Class III.—Gillmor.

# HISTORY (MODERN POLITICAL).

Class I. Housser, Smith (A. N.), DeBeck. Class II.—None. Class III.—Payne.

## ITALIAN.

Class I.—McQueen. Class II. None. Class III.—Gillmor.

### LATIN.

Class I.—Peterson, Naylor, MacLeod. Class II.—Gibb. Class III.—Smith (C. A.).

LOGIC AND METAPHYSICS.

Class I.—Rogers. Class II.—None. Class III.—None.

### MECHANICS.

Class I.—None. Class III.—Hendry.

### MORAL PHILOSOPHY.

Class I.—None. Class II.—Fraser (M.), Clark, Fraser (A.).
Class III.—Eckhardt, Braidwood, Stanton.
Graduate Student.—Class I.—Hindley (J. G.).

## POLITICAL ECONOMY.

Class I.—DeBeck, Smith. Class II.—None. Class III.—None.

## POLITICAL SCIENCE.

Class I.—None. Class II.—Carr, Phelps and Mundie, equal. Class III.—Mowatt and Scott and Stanton, equal; Marcuse, Edwards.

### ZOOLOGY.

Class I.—Drew. Class II.—Kirsch, Gates. Class III.—None.

## THIRD YEAR.

### ASTRONOMY

Class I.-None. Class II.-None. Class III.-MacMillan.

### BOTANY

Class I.-Williams. Class II.-None. Class III.-None.

## ENGLISH COMPOSITION.

Class I.—Davis and Harrison, equal; Cherry and Rider, equal; Price. Class II.—Armstrong (L.) and Cheesbrough and Kydd, equal; Armstrong (G.) and Heward, equal; Riley, Auld and Cattanach, equal; Hayden and Stanton, equal; Macaulay (G.). Bartels and Eaton, equal; Cliff, Macdonald, MacMillan and Parker, equal; Macaulay (E.), Wisdom, Class III.—Ballon (D.) and Coates, equal; MacDougall, Wilson, Allan and Cameron, equal; Ballon (I.) and Massey, equal; Williams and Hill, equal; Pierce, Walker and MacQueen, equal; Masson and Mowatt, equal; Meldrum and Belyea, equal; Baylis, Cushing, Crutchfield, Ellis and Stafford equal.

# ENGLISH LITERATURE (COMBINED COURSES).

Class I.—Riley, Harrison, Armstrong (L.), Armstrong (G. D.) and Cheesbrough and Price, equal; Eaton and MacDonald, equal. Class II.—Cherry and Macaulay (G.), equal; Davis and Heward and Kydd, equal; Macaulay (E.), MacDougall and Walker, equal; Cameron, Parker, McQueen. Class III.—Ellis, Massey, Allan and Baylis, equal; Bartels, Stanton, Crutchfield and Cushing, equal; Hill. Coates, Belyea and Cattanach and Meldrum, equal; Masson and Mowatt, equal;

### EXPERIMENTAL PHYSICS.

# (1) Sound, Light and Heat.

Class I.—Price. Class II.—Rider. Class III.—Wood and McQueen, equal.

# (2) Electricity and Magnetism.

Class I.—None. Class II.—Bates, James. Class III.—Cameron. Crutchfield.

### FRENCH.

Class I.—Swift (Prize), Couture and King, equal. Class II.—Ballon (D.), Penny, Auld. Heward, Hayden. Class III.—McDougall, Bartels, Ballon (I.), Cattanach, Masson, Mowatt.

#### GEOLOGY.

Class I.—Ellis. Class II.—Cushing, Parsons, Baylis and Mowatt, equal: Armstrong, Macaulay (G.), Allan, Macaulay (E. E.), Kydd and Parker, equal. Class III.—Belyea, Mayden, Pierce, Coates, Williams, Masson,

### GERMAN.

Class I.—Conture (Prize), King, Swift, Class II.—Hayden, Class III.—None,

### GREEK.

Class I.—Crawford and Hux(able, equal (Prizes); Vincent (Prize), Gould. Class II.—Wisdom, McCann. Class III.—None.

## HEBREW AND ARAMAIC (ADVANCED).

Class I.—Huntley (Prize), Class II.—Cliff, MacMillan, Class III.—None,

### HISTORY.

Class I.—None. Class H.—MacCallum, Parker, Armstrong (L. F.) and McQueen, equal; Price, Mowatt and Walker, equal; Davis, Rider, Class III.—Macaulay (E. E.), Kyud, Massey.

# LATIN.

Class I.—Vincent (Prize), Gould Huxtable, Heward, Class II.—Crawford, Penny, Class III.—Bartels.

## LOGIC AND METAPHYSICS.

Class 1.—None. Class II.—Laverock. Class III.—None.

# MORAL PHILOSOPHY.

Class I.—Parsons, Huntley, Cliff and MacKenzie, equal; Davis, Class H.—Walker and Wisdom, equal; MacMillan, Class III.—Macaulay (G.), Pierce.

# POLITICAL PROYOMY.

Class I.—None. Class II.—MacCallum, Wilson. Class III.—Mel drum.

### POLITICAL SCIENCE.

Class I.—Cherry, Ellis, Ballon (D. II.). Class II.—Auld and Wilson, equal; Baylis and MacCallum, equal; Crutchfield, Rider, Wisdom. Class III.—Cushing, MacDonald and MacDougall, equal; Cameron, Allan, Balyea and Cattanach, equal; Campbell and Stafford, equal.

## PSYCHOLOGY.

Class I.—None. Class II.—None. Class III.—McQueen. Graduate Student:—Class I.—Cox (K. A.).

## ROMAN LAW.

Class I.—Cherry. Class II.—Ballon (I.), Ellis. Class III.—None.

### ZOOLOGY.

Class I.—None. Class II.—MacDonald. Class III.—Coates, Massy.

# SECOND YEAR

### BOTANY

Class I.—Patterson, Logan, Class II.—Fineberg, McClughan and MacDougall, equal; Maclean, Smillie. Class III.—Ramsay, Auchinleck, Stewart, Younger.

## BIOLOGY (CONTINUATION COURSE).

Class I.—Elliott. Class II.—Hawkins. Class III.—Holden, McBurney.

## BIOLOGY.

Passed Supplemental of Christmas Examination, Saint, Stewart.

### CHEMISTRY.

Class I.—Shaw, Patterson, Gillis and McGougan, equal; Price and McClughan, equal. Class II.—Simpson, Fineberg and Waterston, equal; Ayer, Younger, Hawkins, Maclean, Bouchard, Feiczewicz. Class III.—Stewart, Elliott, Auchinleck, McEurney, Creswell, Penny, Holden.

### ENGLISH.

Class I.—Hawkins (Prize), Steedman, Smillie, Logan. Kingman and McGougan and MacKeen and Yates‡, equal; Gibbins‡, Auchinleck. Class II.—Rice and Smith, equal; Penny, Greenshields and Boyle and Macnaughton, equal; Emerson‡ and Randall‡, equal; Ramsay and Pearson‡, equal; Chandler and Simpson (J. C.), equal; Isherwood and Lindsay and Platsted, equal; Efflott and Hiobard and Anderson‡, equal; Waterston, Wisdom and Dodge and Fleet, equal; McQueen and Simpson (A. C.) and Bouchard, equal; Sauvalle and Bignell, equal; Stewart. Class III.—Timberlake and Ross, equal; Hastings, McDiarmid, Patrick, McBurney and McDougall and Stone‡, equal; Ciarke‡, Libby†, Dolbel, Becker‡, Ayer and McLeod, equal; Holden.

<sup>†</sup>Stanstead College.

<sup>‡</sup>Vancourer Collège.

### PNGLISH COMPOSITION.

Class I.—Hawkins, Logan, McClughan, Wisdom, Dodge, Machaughton and Steedman, equal; Auchinleck and MacKern, equal; Smillie and Penny, equal; McGougan, Duncan and Mackern, equal; Isherwood, Boyle and Tyndale, equal, Class II.—Ross and Simpson (J. C.) and Smith, equal; McQueen and Shaw, equal; Paterson and Shawart, equal; Chandle rand Holden and Plaisted, equal; Rice, MacDougall, Hibbard and Simpson (A.) and Waterston, equal; Bouchard and Ramsay, equal; Lindsay and Sanvalle and Shanks and Younger, equal; Kingman, Class III.—Elliott and Feiczewicz, equal; Greensields, McBurney, Bignell and Stockwell, equal; Creswell and Timberlake, equal; Ayer and Gillis, equal; Fineberg and Hastings, equal; Dolbel and Patrick, equal; MacDiarmid.

# DESCRIPTIVE ECONOMICS (HALF COURSE).

Class I.— Duncan, Tyndale (Prize), Kingman (Prize), Class II.—Shanks, Hastings, McQueen (G. R.) and Waterston, equal, Class III.—MacKeen, McDiarmid, Creswell, Greenshields and Stockwell, equal; Lindsay.

HISTORY (January, 1906), HALF COURSE.

Class 1.—Steedman, Kingman, Greenshields, Tyndale, McQueen (G. R.). Class 11.—Stockwell, Lindsay and Hastings, equal; Isherwood, MacKeen, Shanks. Class 111. Machaughton, Wisdom, MacDiarmid.

#### GERMAN.

Class I.—McClighan (Prize). Class 11.—Younger. Class 111.—Auchinleck, Sauvalle.

# GERMAN (ADVANCED SICTION).

Class I.—None, Class II.—Younger, Class III.--Sauvalle.

### URENCH.

Class I.—Sanvalle, Tyndale (Prixe), Plaisted, Fineberg and Dolge, equal. Crass II.—Younger, Feiczewicz, Holden and Creswell and Steedman, equal. Class III.—Stockwell, Dolbel, Shanks, Smillie and MacDiarmid, equal; Stewart, Penny, Waterston, Hastings, Hibbard and MacKeen, equal.

# FRENCH (ADVANCED SECTION).

Class I.—Sauvalle, Tyndale. Class 11. Plaisted and Younger, equal.

### GRILLIK.

Class 1.- Logan (Prize), Emerson‡, Class II. Smith, Bouchard, Ross and Yates‡, equal; Maclean, Mechanghton, Wisdom, Class III.--Timberlake, Isherwood.

## HEBREW.

Class I. Rice (Prize), McGougan, Lindsay. Class II.—Nicholson. Class III.—Chandler, Timberlake.

TStanstead College.

<sup>\$1</sup> ancourer College.

#### LATIN.

Class I.—Tyndale (Prize), Steedman, Patterson, Emerson; and Yates; equal; Maclean. Class II.—Hawkins, Greenshields and Kingman, equal; Lindsay and Pearson; equal; Dolbel and Wisdom, equal; Libby; Becker; Class III.—Smillie, Feiczewicz and Holden, equal; Shanks, Creswell and Hastings, equal; MacDiarmid, Elliott and Randall; equal; Fineberg and Ramsay, equal; Rice, Stone; McBurney, Gibbins; and Waterston, equal; Simpson, Penny, McDougall, Ayer and Anderson; and McQueen, equal; Chandler and Clarke; equal.

### LOGIC.

Class I.—McGougan and Paterson, equal; Kingman and Tyndale, equal; Pearson ‡, Class II.—Waterston, Feiczewicz, McDougall, Ricz, Stone‡, Class III.— Ross, Libby†, Becker‡ and Smith, equal; Duncan and McQueen and Yates‡, equal; Chandler and Ramsay, equal; Shanks, Emerson‡, Randall‡, Dawson, Gibbins‡ and Patrick, equal; Creswell and Timberlake, equal; Greenshields.

### MATHEMATICS.

# (1) Algebra (April, 1906).

Class I.—Shaw, Gillis, Boyle, Class II.—Ayer, Class III.—Dolbel and Plaisted, equal; Becker‡ and Gibbins‡, equal; Libby†, Patrick, and Stone‡, equal; Pearson‡, Wood.

# (2) SOLID GEOMETRY AND CONIC SECTIONS. (Christmas, 1905).

Class I.—Gillis, Stone‡, Shaw, Becker‡ and Ruttan, equal; Ayer, Clark‡ and Gibbins‡ and Plaisted, equal; Boyle and Dolbel equal. Class II.—Pearson‡, Anderson‡ and Randall‡, equal; Wood, Libby†, Class III.—Patrick, Simpson (A. C.).

## (3) Advanced Section in Mathematics.

# (a) Geometry.

Class I.—Shaw, Gillis and Boyle, equal. Class 11.—None. Class 11.—None.

# (b) Calculus.

Class I.—None. Class II.—Gillis, Shaw, Boyle.

# PSYCHOLOGY (Christmas, 1905).

Class I.—McGougan, Stone‡ and Yates‡, equal; Tyndale, Class II.—Rice, Emmerson‡ and Smith, equal; Libby† and Feiczewicz, equal; Dawson, Duncan, Kingman and Paterson, equal, Class III.—Greenshields, Patrick and Pearson‡, equal; Ross and Gibbins‡, equal; Randall‡, Shanks, Stockwell, Ramsay, Timberlake, Clark‡ and Macdougall, equal.

# PSYCHOLOGY (April, 1906).

(Passed Supplemental).—Chandler, McQueen.

<sup>†</sup>Stanstead College.

<sup>‡</sup>Vancouver College.

# FIRST YEAR.

#### ENGLISH.

Class I.—Estabrooks (Prize), Schafheithn and Cunningham\*, equal; Willis, Bruneau, Slattery, Hatcher and Hawkins and Richardson and Phipps‡, equal, Class H.—Salo‡, Cameron and Baxter\*, equal; Thompson and McDonald (J.), equal; Geggie and Glidlon and Kerry, equal; Townsend and Jonest, equal; Pedley, Hale and MacLeodt, equal; Cheesbrough and Hindley (W. W.) and Trennolme, equal; Bols and Lyman and Cockrell, equal; Sproule and Massé and Raynes, equal; Fisher and Plimsoll and Dennis and Gray and Green‡, equal, Clas III.—Cushing and Murray‡, equal; LeMesurier and Howell‡ and MacKenzie and Holland, equal; Philip‡ and Sutherland‡, equal; Canegata and Price‡ and Russell\*, equal; Clouston and Fleet and Harvey and Andersou‡, equal; Packard and Varley and Miller (A.), equal; Drummond and Sutherland and Waterston, equal; Shannon and Fetherstonhaugh, equal; Dennison and Mayety and Dick and Gregge, equal; Norris and Lawson and McKinnon and Miller (M.), equal; Carey and Gardiner and Gordon and McMahon‡ and Rennoldson and Runnels and Corbett and MacLeod. equal: Leger and Smith and Surprenant and Telfer, equal: Brown and Nicholson and Tremblay and Wilson and McEwen and Miller, equal; Stanton and Baylis and Elliott and Vipond, equal; Pringle and Thorne and Murphy and Erskineü, equal; Hindley (G.) and Cormack, equal; MacDonald, Brunet and McLennan and Fullerton\*, equal; Oliver, Harthan and Irwin and Mitchell and Munn and Tanner and Cream, equal.

## FRENCH.

Class I.—Townsend and Tremblay (Prizes), equal: Schafheitlin, Bruneau and Massé and Tanner, equal. Class 11.—Hatcher, Fleet and Kerry, equal; Cunningham\* and LeMesurier, equal; Vipond, Fisher and Péron, equal; Cockrell, Harthan, Elliott and Pedley and Surprenant and Trenholme, equal; McDonald (J.) and Sproule, equal. Class BL.—Dennison and Packard, equal; Cameron and Fetherston-haugh, equal; Clouston, Miller (C), Cushing and Drummond and Willis, equal; Cheesbrough and Hawkins, equal; Carey and Cream and Geggie, equal; Anderson‡ and McMahon, equal; Leger, Jones! and Runnells, Henry and Waterston and Wilson, equal; Hale and McGibbon, equal; Corbett, and Dick and Gray and Mackenzic and Pimsoll and Stanton, equal; Baxter\* and Green; and McCartney; and Pringle and Canegata and Gliddon and Hanson, equal.

### GERMAN.

Class 11. Lyman, Mc-Class I.—Schafheitlin, Townsend (Priza). Donald (...), Dodge, Class III.—Telfer and Trenholme, equal; Vipond, Munn, Hadley, Flawkins.

# GERMAN (REGINNERS'.)

Class I.—None. Class II.—Hatcher, Stuart. Class III. Harvey. Bole, Younger, Gray.

GREEK.

Class 1.—Estabrooks (Prize), Hatcher (Prize), Murphy (Prize), Class H.—Richardson, Thompson‡, Bruneau, Mitchell, Elliott, Class H.—Brown, McKinnon‡, Gordon, Howell‡, Shannon, Philip‡, Brunet and Tremblay, equal; Wilson, Mayety and Varley, and McLeod, and Phicas † and Price † Phippst and Pricet, equal.

<sup>\*</sup>Stanstead College.

<sup>‡</sup>Vancouver College.

<sup>\*</sup>Victoria College.

#### LATIN.

Class I.—Hatcher (Prize), Townsend (Prize), Estabrooks (Prize), Willis, Murphy, Cockrell, McDonald (J.), Cushing, Class H.—Dennison, Harvey and Lyman and Richardson, equal; Cameron and Pedley, equal; Cunningham\*, Class III.—Fleet and LeMesurier and Smith, equal; Thompson‡, Canegata, Hale, Trenholme, Massé and Slattery, equal; Brown and Carey, equal; Hawkins, Shannon and Surprenant, equal; Baxter\*, Cheesbrough and McGibbon and Mitchell and Tanner and Vipond, equal; Clouston and Elliott and Gliddon and Jones‡ and Mackenzie, equal; Dick and Gordon and McKinnon‡ and Plimsoil, equal; Henry and Packard and Waterston, equal; Philip‡, Anderson‡ and Hindley (W. W.) and Rennoldson, equal; Fisher, Brunet, Corbett and Geggie and Howell‡ and Price‡ and Pringle, equal; Telfer, Green‡ and Salo‡ and Sproule, equal; Bole and Varley, equal; Cormack and Drummond and Erskine‡ and Finch‡ and Gregg‡ and Mavety, equal; Runnels and Thorne and Wilson (T. E.) and McNaughton‡, equal.

#### MATHEMATICS,

# (I) Algebra.

Class I.—Estabrooks, Couston and Gliddon and Wilson (T.), equal; Cockrell, Hanson, Waterston, Hawkins, Geggie and Slattery, equal; Canegata, Schafheitlin and Scott, equal; Holland and Lawson‡ and McNaughton‡ and Packard and Pringle, equal.

Class II.—Cushing. Hilborn and Turnbull, equal; Marsh and Thompson‡, equal; Oliver, McEwen, McGibbon and Shannon, equal; Ash and Townsend, equal; Bates and Scott‡ and Tremblay, equal; Harvie and MacKenzie and Vipond, equal; Stevens, Boyd and Campron and Rennoldson, equal; Baxter\* and Henry and Howell‡ and Read, equal; Cheesbrough and Dennis and Fleet and Gordon and Hindley (W. W.) and McDonald (J.) and Telfer, equal; Class III.—MacDonald (A. B.) and Shearer‡, equal; Bruneau and

Class 111.—MacDonald (A. B.) and Shearer‡, equal; Bruneau and Drummond and Harvey (C. H.) and Head and Lyman, equal; Anderson‡ and Dettmers and Peron and Willis, equal; Norris, Hale and Lemesurier and Elliott and Irwin and Smith and Thorne, equal; Dick Fullerton\*, Baylis and Pedley and Stanton, equal; Lawson and Plim soll, equal; Murphy, Gregg\*, Corbett and Gray and Williams and Murray‡, equal; MacKinnon‡, Fetherstonhaugh and Gillmor and Richardson, equal; Gardner and Suprenant and Wilson (F.), equal Bole and Chrysler and Erskine\* and MacMahon and Mavety and McMurtry and Philip‡ and Webber, equal.

## FIRST YEAR.

# (2) Trigonometry.

Class I.—Gliddon, Ash. Thompson<sup>†</sup>, Hanson, Jones<sup>‡</sup> and Mac-

kenzie, equal; Packard, McNaughton‡.

Class II.—McDonald (J.). Schafheitlin, Hawkins, Howell‡ and Tremblay, equal; Hilborn and MacKinnon‡ and Slattery, equal\* Clouston, Bruneau and Townsend, equal; Lyman and Scott‡, equal\* Holland and Shearer‡, equal\* Cameron and Gordon and Marsl and Smith and Cockrell and Wilson, equal; Harvey and Shannon equal; Stevens and Henry, equal; Baxter\*, Carey and Cheesbrough equal.

<sup>±</sup>Vancouver College.

<sup>\*</sup>Victoria College.

Class III. Cushing and MacDonald (A.) and MacLeod‡ and Letherstonhaugh, equal; Cunningham and Mavety and Gillmor and Surprenant and Phipps‡, equal; Price‡, Eisher and Harvie, equal; Pedley and McEwen, equal; Plect and Philip, equal; McGibbon and Waterston and Fullerton\* and Gregg, equal; Anderson, and Hindley (W. W.), equal; Corbett and Boyd and Scott and Vipond and Brown, equal; Rennoldson and Turnbull and Willis, equal, Erskine and LeMesurier and Pringle and Telfer and Salo‡, equal, Hale and Hindley (G. J.) and Read and Murphy, equal; Gardner and Cangata and Elliott and More\*, equal; Bates, Geggi; Chrysler and Gray, equal, Cains and Green and Galloway‡, equal; McLennan and Oliver and Keith and Massé and Wilson, equal.

# (3) Geometry (Christmas, 1905).

Class I.—Clouston and Thompson‡, equal; McDonald (Jessje), Wilson, Cushing and Price‡, conal; Surprenant, Cunningham\*, Cameron, Macnaughton‡, Pedley, Cockrell and Holland, equal; Mavety, Hawkins, Baxter\* and Cheesbrough, equal. Class II.—LeMesurier and Fetherstonhaugh equal; Schafheitlin, Telfer, Gliddon and Macrae\*, equal; Hanson, Shannon and Mackenzie, equal; Lawson, Brunean and Hôbert and Macdonald (A.) and Jones‡ and McCartney‡, equal; Fleet and Harvey (C.) and McGibbon and Townsend and Shearer‡ and Mackinnon‡, equal; Plinsoll and Read and Phipps‡, equal; Willis, Gordon and Harvie (M.) and McEwen and Vipond and Howell‡ and Salo‡, equal. Class III.—Turnbull, Scott‡ and Tremblay, equal; Daw and Nicholson and Oliver and Bates and Slattery, equal; Gregg\* and Richardson, equal; Carcy and Pringle and Gillmor and Scott, equal; Erskine\* and Hale and Marsh and Smith, equal; Baillie, Stevens and Sutherland‡, equal; Irwin and Waterston and Henry, equal; Howitt and Cains, equal; Canegata and Boyd and Macleod‡ and Murray‡, equal; Bole and Hilborn and Munn and Fullerton\*, equal; Corbett and Head, equal; Gardiner and Geggie and Elliott and King\* and Phillip‡, equal; Hindley (G. J.) and Peron and Thorne and Trenholme, equal; Williams, Runnels and Mitchell, equal; Drummond and Fisher and Webber and Russell\*, equal; Hindley (W. W.) and Renholdson and Dick and Norris and Dettmers and Macleod and Wilson and More\* and Robertson‡, equal.

Geometry (April, 1906).

Passed Supplemental, McMurtry, Ash, Brunet.

(4) Advanced Section in Mathematics,

## (a) Geometry.

Class I. Estabrooks, Sproule, Hatcher, Dennison, Stuart Class II.—None, Class III.—Gladman,

# (b) Algebra and Theory of Lonations.

Class I = Hatcher, Dennison, Class II, Stuart, Class III, Sproule, Gladman,

# PHYSICS.

Class I. Sch. fheitlin, Hatcher and Slattery, eq.(11); Willis, Estabrooks, Clouston Salot, Dennison and Holland (C. J.) and Stuart, equal; Wilson (T. E.), Sproule, Jonest, Gliddon, Geggia and Cockrell,

<sup>\*</sup>Victoria College.

<sup>‡</sup>Vancourer College.

equal. Class II.—Cameron, Howitt, Fleet and Nicholson, equal; Surprenant and Telfer, equal; Hawkins and Packard, equal; LeMesurier, Cushing and Lyman, equal; Dennis, Thompson‡ Pimsoll, McNaughton‡, Bates and Baxter\* and Cheesbrough and Mackenzie and McGibbon, equal; Cunningham\* and Drummond and Fetherstonhaugh and Miller (A. R. C.) and Murphy and Pedley and Raynes and Shannon, equal Class III.—Mavety, Hale, Carey and Vipond, equal; Corbett and Hindley (W. W.), equal; McLennan and Gray, equal; Bole and Harvey and Norris, equal; Tremblay, Thorne and Green‡, equal; Macdonald (A. B.) and Pringle and Smith, equal; Elliott and McDonald (J.), equal; Irwin, Gordon and Miller and Philip‡, equal; Bruneau and Lawson and Turnbull, equal; Dustin and Macleod and McMahon and Wilson (F. M.), equal; Gardiner and Hanson and Howell‡ and Price‡ and Massé and Richardson and Waterston and Williams, equal; Fisher and Gillmor and Sutherland, equal; Rennoldson and Murray‡, equal; Canegata and Fullerton\* and Gladman and MacKinnon‡ and Oliver and Pelletier, equal.

SPANISH.

Class I.—Ham. Graduate Student.—Class I.—Chodat.

<sup>\*</sup> Victoria College. ‡ Vancouver College.

# McGill University

# DEGREE AND SESSIONAL EXAMINATIONS 1905-1906

# Faculty of Applied Science

# FOURTH YEAR GRADUATE CLASS

## HONOURS.

(In alphabetical order).

Black, Thompson Designing. Trueman.—Prize for Summer Thesis; Honours in

Blackader, Gordon.-Honours in History of Architecture.

Christie, Clarence Victor.—British Association Exhibition.

Clawson, Ernest Edward.—Honours in Designing and Theory of Structures.

Cole, George Edwards.—Honours in Mining Designing.

Cole, Lionel Heber.—Nomination to Allis-Chalmers Scholarship; Honours in Ore-Dressing Laboratory and Mining Designing.

Gray, Alexander Miller.—British Association Medal; Prize for Summer Thesis; Honours in A. C. Machinery, Electric Lighting and Traction, Hydraulics, Thermodynamics, and Machine Design.

Howell, Edgar Newlands.—Second Carlyle Prize; Allis-Chalmers Scholarship.

Jackson, Maunsell Bowers.—British Association Medal; Honours in Dynamics of Machines and Thermodynamics.

Livingston, Douglas C.—Honours in Chemistry.

McLachlan, D. William.—British Association Medal; Honours in Designing and Railway Engineering.

McLeish, Ian.—Honours in Hydraulies.

Robertson, Arthur Frederick.—British Association Medal.

Turley, Edward James.-Prize for Summer Thesis.

Wickware, Francis Graham.—Dawson Fellowship in Mining; First Carlyle Prize; Prize for Summer Thesis; Honours in Ore Dressing and Geology.

# PASSED FOR THE DEGREE OF BACHELOR OF ARCHITECTURE.

### ARCHITECTURE.

Blackader, Gordon H., Montreal, Que.

# PASSED FOR THE DEGREE OF BACHELOR OF SCIENCE.

(In order of merit.)

### ARCHITECTURAL ENGINEERING.

Anglin, J. Penrose, Montreal, Que.

## CHEMISTRY.

Robertson, Arthur Frederick, Montreal, Que. Davidson, Thomas Reginald, Montreal, Que. Harvie, Robert, Westmount, Que.

## CIVIL ENGINEERING.

McLachlan, D. William, Lochaber Bay, Que. Clawson, Ernest Edward, St. John, N.B. Macnab, John Joseph, Elsinore, Ont. Piers, Edward Otis Temple, Wolfville, N.S. McCuaig, George Eric, Montreal, Que. Brunner, Godfrey Hugh, Huyton, Liverpool, England. Anderson, Frederick William, Ottawa, Ont. Pedley, Norman Field, Montreal, Que. Black, Thompson Trueman, Dorchester, N.B. McIntosh, Robert Foster, Newcastle, Ont. McConkey, Thomas Clarkson, Guelph, Ont. Hadley, Henry, Montreal, Que. Newton, Stephen Gibbon, Sherbrooke, Que. Dawe, Robert George, St. John's Nfld. Vansittart, George Edward, Toronto, Ont. Gordon, Maitland Lockhart, Toronto, Ont.

# ELECTRICAL ENGINEERING.

Gray, Alexander Miller, Edinburgh, Scotland.
McLeish, Ian, London, England.
Forbes, John McNeill, Bonavista, Nfld.
Brennan, George Eric, Ottawa, Ont.
Christie, Clarence Victor, Halifax, N.S.
Harvie, James, Westmount, Que.
Hibbard, Melville Louis, Farnham, Quc.
Durland, Royden Keith, Yarmouth, N.S.
Durkee, Pearl Whitfield, Digby, N.S.
Mudge, Reginald, Montreal, Que.
Barrington, Frederick Herbert, Waterloo, Que.

Purdy, James deLancy, Springhill, N.S. Gurd, Andrew Douglas, Montreal, Que. Ross, Daniel H., London, Out.

Thomas, Herbert Percival, negrotat.

## MECHANICAL ENGINEERING.

Jackson, Maunsell Bowers, Toronto, Ont.
Black, Douglas Edward, Montreal, Que.
Kirkpatrick, Everett Charles, Montreal West, Que.
Loudon, Andrew Charles, Ottawa, Ont.
Turley, Edward James, Frankford, Ont.
Presner, Joseph, Montreal, Que.
MacCarthy, Arthur Kempston, Ottawa, Ont.
Taylor, Allan Harvey, Ottawa, Ont.
Gibbs, Harold, Egerton, Port Arthur, Ont.
Pinch, Harry Harstone, Owen Sound, Ont.

## MINING ENGINEERING.

Wickware, Francis Graham, Eastons Corners, Ont.
Howell, Edgar Newlands, Westmount, Que.
Livingston, Douglas Clermont, Corfield, B.C.
Cole, Lionel Heber, Montreal, Que.
Winter, Elliott Edward, Demerara, British Guiana, South America.
Cole, George Edwards, Phænix, B.C.
Burnett, Archibald, Montreal, Que.
McMeckin, Albert, Bright, Ont.
Cowen Reginald Percival, Cumberland, England.
Ritchie, Alan Bruce, Halifax, N.S.
Young, Horace Greeley, Osnabruck, Ont.

### THIRD YEAR

# PRIZES.

# (In alphabetical order.)

Bell, George Edward.—First Prize in Mathematics; Prizes in Surveying and Surveying Fieldwork, Graphical Statics, Theory of Structures, Structural Engineering, Railway Engineering, and Practical Astronomy.

Brown, William Gordon.—Prize in Metallurgy.

Gamble, Clarke William .- Prize in Surveying Fieldwork.

Gray, James Seton.—Prize in Theory of Structures. Kenyon, Lot Amos.—Second Prize in Mathematics.

Killam, Lawrence.—Second Prize in Mathematics; Prize in Machine Design.

Lamb, Henry Melbourne.—Second Prize in Mathematics; Prizes in Descriptive Geometry and Practical Astronomy.

Lathe, Frank Eugene.-Prize in Metallurgy.

Riddell, Arthur C .- Prize in Dynamics of Machines.

Shearer, George W .- Prize for Continuous Current Machinery.

Whitcomb, Frank O .- Prize in Thermodynamics.

# PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit.)

## ARCHITECTURE.

Shorey, Harold E., Montreal, Que. Robb, Frederick G., Montreal, Que.

## CHEMISTRY.

Elliott, Percy Harris, Saskatoon, Sask. Spafford, Arthur Lucius, Lennoxville, Que.

# CIVIL ENGINEERING.

Bell, George Edward, St. Thomas, Ont.
Lamb, Henry Melbourne, Montreal, Que.
Racey, Percy W., Lennoxville, Que.
Miller, Henry B., Montreal, Que.
Davis, George H., Gananoque, Ont.
\*Gamble, Clarke W., Victoria, B.C.
Black, Hiram J., Amherst, N.S.
Brown, William G. B., Quebec, Que.
\*Westland, Clarence R., Wyoming, Ont.
\*Wilson, William S., Niagara Falls, Ont.
Beaton, Norman H., St. Catharines, Ont.
McCallum, George H., Smith's Falls, Ont.
\*Otty, George N., Hampton, N.B.
Mathieson, Donald M., St. Mary's, Ont.
\*Howe, John P., Pembroke, Ont.
\*Howe, John P., Pembroke, Ont.
\*Macdonald, Harold F., Fort Qu'Appelle, Assa.
\*Harrington, Conrad D., Montreal, Que.
\*Wheaton, Isaac G., Sackville, N.B.
\*Hay, Norman K., Ottawa, Ont.
\*Macklem, Oliver T., Toronto, Ont.
\*Canfield, Frederick Osborne, Woodstock, Ont.

# ELECTRICAL ENGINEERING.

Shearer, George W., Montreal, Que.
Woodyatt, James B., Brantford, Ont.
Wright, George R., Salisbury, N.B.
Kenyon, Lot A., Rochelle, Que.
Griffin, Frank F., Winnipeg, Man.
Little, William D., Morden, Man.
Hargrave, William H., Medicine Hat, N.W.T.
Hall, Gerald Russell, Peterboro', Ont.
\*Brown, S. Barton, Ottawa, Ont.
McCuaig, Stuart, Montreal, Que.
\*Trimingham, James H., Hamilton, Bermuda.

<sup>\*</sup>To pass Supplemental Examinations.

\*Williams, Frederick H., East Sherbrooke, Que. \*Haskell, Ludlow St. J., Montreal, Que.

\*Engel, Nathan L., Montreal, Que.

\*Ross, Douglas Gooderham, Toronto, Ont.

"Macdonald, Robert R., Hamilton, Ont.

# MECHANICAL ENGINEERING.

Killam, Lawrence, Yarmouth, N.S. Gray, James S., Edinburgh, Scotland. Riddell, Arthur G., Hamilton, Ont. Munn, D. Walter, Montreal, Que. \*Whiteomb, Frank O., Smith's Falls, Ont. Foster, Henry S., Montreal, Que. Hall, Norman M., Cornwall, Out. \*Norton, Thomas J., Montreal, Que. \*Maxwell, Lawrence G., St. Mary's, Ont.

METALLURGY.

Brown, William G., Montreal, Que. Lathe, Frank E., Maisonneuve, Que. \*Dickson, Wallace, Lacolle, Que.

# MINING ENGINEERING.

Macaulay, Rupert M., Scotstown, Que. \*Wark, Samuel D., Langley Prairie, B.C. \*Drummond, George D., Midland, Ont.

# SECOND YEAR

# PRIZES.

(In alphabetical order.)

Baird, John Boyd.—Prizes in Chemical Laboratory and Materials of Construction.

Finlayson, John Norison.—Prize in Physical Laboratory.

Guillet, George Leroy.-Scott Prize; Prizes in Physics and Dynamics of Machines.

Herbert, William Harry.—Scott Exhibition; Prizes in Chemistry and

Mechanical Drawing.

Mayers, Francis Laurie Spencer.—Prize for Essay.

Parham, John Bright .- Prize for Mapping.

Wood, Alexander Campbell.-Prize for Architectural Drawing.

# PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit.)

Students of equal standing bracketed together.

Herbert, W. Harry, Ottawa, Ont. Guillet, George L., Cohourg, Ont. Baird, John B., St. John's, Nild. Parham, John B., Outremont, Que.

<sup>\*</sup>To pass Supplemental Examinations.

Whyte, Herbert B., Ottawa, Ont. Lighthall, Abram, Vankleek Hill, Ont. Hattie, James B., Caledonia, N.S. McBeath, D. Blair, Marshfield, P.E.I. Vipond, William S., Mortal, Que. Cameron, James S., Stellarton, N.S. Bristol, Charles F., Vancouver, B.C. Turnbull, Kenneth, Montreal, Que. Dalton, Arthur T., Vancouver, B.C. \*Hodge, Charles A., Birchton, Que. Carmichael, Henry G., Montreal, Que. Graham, John R., Ottawa, Ont. Davis, Francis M., Windsor, Ont. \*Dick, William, J., Nanaimo, B.C. Campbell, Edmund E., Belmont, P.E.I. Mohan, Richard J., Brockville, Ont. \*Kerr, Archibald, Dutton, Ont. \*Davies, Harold C., Hull, Que. Whitton, Corbett F., Hamilton, Ont. Murphy, William H., Rochester, N.Y. \*Irwin, Robert H., Ottawa, Ont. Raphael, Gordon S., Ottawa, Ont. \*Montague, T. Mortimer, Galt, Ont . \*Ballantyne, Thomas B., Galt, Ont. \*Christie, Harold R. M., Ashcroft, B.C. \*Forbes, John H., Montreal, Que. \*Bell, Valentine H., Kingston, Jamaica. Montgomery, Edgar G., New Richmond, Que. \*Winslow, Edward S., Stratford, Ont. \*Richardson, Charles E., St. Mary's, Ont. \*Stitt, Ormond M., St. John, N.B. \*Shanks, D. Albert, Howick, Que. Finlayson, John N., Merigonish, N.S. \*Ross, Donald, Edmonton, Alta. \*DeLancey, James A., Middleton, N.S. \*Ross, Cecil Middleton, Scotstown, P.Q. Morrin, Arthur D., Lachute, Que. Snook, John S., Truro, N.S. \*Pratt, Austin C., Ottawa, Ont. \*D'Aeth, John B., Jamaica, West Indies. \*Harris, Harvey W., Jamaica, West Indies. \*Brennan, Charles V., Summerside, P.E.I. \*Nicholls, Jasper H. H., Westmount, Que. \*Moore, William J., Vermont, U.S.A. \*Scott, W. Ralph, Napanee, Ont. \*Allan, Marshall G., Perth, Ont. \*Heywood, Edward P., Cambridge, Mass. \*Briegel, Walter O., Montreal, Que. \*Spencer, Walter H., Montreal, Que. \*McGuire, Gordon A., Montreal, Que. \*Letourneau, Marius, Montreal, Que. \*Younger, Harry R., Ottawa, Ont. \*Anderson, Sedley C., Halifax, N.S. \*Melhuish, Paul, Surrey, England. \*Thorne, Harvey, Dartmouth, N.S.

\*Ahern, Walter J., Westmount, Que.

<sup>\*</sup>To pass Supplemental Examinations.

\*Morrison, Albert G., Woodstock, Ont.

\*Lynch, Francis C. C., Ottawa, Ont. \*Saunders, Charles W. Mel., Jamaica, West Indies.

\*Drysdale, Charles W., Montreal, Que. \*Seovil, Harry H., Hampton, N.B.

Perry, Kenneth M., Saskatchewan.

# PASSED THE SESSIONAL EXAMINATIONS IN ARCHITECTURE.

Wood, Alexander C., Westmount, Que. \*†Ruttan, Frank N., Winnipeg, Man. Mayers, Francis L. S., Barbados, West Indies.

# FIRST YEAR

# PRIZES.

(In alphabetical order.)

Dwight, Herbert B.-First Prize for Mathematics; Prize for Physics. Grove, Humphrey S .- First Fleet Workshop Prize. Lindsay, Alexander M .- Prize for Freehand Drawing and Lettering. Macdonald, Jay.-Prizes for Descriptive Geometry and Physical Laboratory. Price, Thomas E.—Second Fleet Workshop Prize. Sailman, Robert T. H .- Second Prize for Mathematics. Farnsworth, C. Albert .- Prize for Physical Laboratory.

# PASSED THE SESSIONAL EXAMINATIONS.

(In order of merit. Students of equal standing are bracketed together.)

Dwight, Herbert B., Picton, Ont. Macdonald, Jay, Vernon River, P.E.I. Campbell, William B., Brockville, Ont. Dennis, William M., O'Leary, P.E.I. Farnsworth, C. Albert, Sawyerville, Que. Kennedy, William A., Owen Sound, Ont. Watson, James R., Little Rideau, Ont. Sailman, Robert T. H., Malvern, Jamaica, West Indies. Stewart, Robert B., Strath Gartney, P.E.I. McKinnon, Kenneth R., New Glasgow, N.S. Hague, Owen C. F., Montreal, Que. Coulin, Louis A., Montreal, Que. †Stewart, Leighton, Summerside, P.E.I. Allen, Alexander D., Wallaceburg, Ont. Lindsay, Alexander M., Invercargill, New Zealand. Smith, George W., Ottawa, Ont. Grove, Humphrey S., Chelsea, London, England. Dickieson, Arthur L., Ottawa, Ont. Galbraith, William J., St. Romuald, Que. Ford, Walter S., Winnipeg, Man. Robertson, William S., Westmount, Que.

<sup>\*</sup>To pass Supplemental Examinations. †Matriculation conditioned.

McLean, Douglas L., Ottawa, Ont. Nairn, John S., Truro, N.S. McNaughton, Andrew G., Moosomin, Sask. Briggs, Arthur F. M., Windsor Mills, Que. Meek, Victor M., Port Stanley, Ont.
Williamson, William R., Owen Sound, Ont. Fraser, Archibald N., Coaticook, Que. Soper, Arthur J., Brockville, Ont. Yuill, Harry H., Truro, N.S. Poissant, Onesime E., Montreal, Que. Mooney, Harry V., Stardale, Ont.
Menzies, John W., Ottawa, Ont.
Best, William P., Montreal, Que.
O'Neill, John J., Port Colborne, Ont.
Landry, Wilfred A., Dorchester, N.B.
\*Stackhouse, Charles W., Moncton, N.B. LaForest, Guy B., Montreal, Que. \*Wilson, Alexander, Montreal, Que. Maltby, Quinton J., Midland, Ont. \*Sutherland, Luther H. D., Montreal, Que. \*Morison, Hugh O., Ormstown, Que. Bambrick, Heber, Cranbrook, B.C. \*†Archibald, Henry D., Harbour Grace, Nfld. equal. \*Bronson, Frederick E., Ottawa, Ont. \*McDougall, James C., Montreal, Que. Price, Thomas E., Vancouver, B.C. Descarries, Jos. A., Lachine, Que. \*Dion, A. Hector, Ottawa, Ont.

\*Goode, John D., Westmount, Que.

\*†Ker, Frederick I., Montreal, Que.

\*Fay, Norman P., Knowlton, Que.

\*†Graham, Harold M., New Glasgow, N.S. \*Cate, Carroll L., Sherbrooke, Que. \*Maver, Alexander M., Montreal, Que. \*Checsbrough, Arthur G., Westmount, Que.

## PASSED THE SESSIONAL EXAMINATIONS IN ARCHITECTURE.

\*Fetherstonhaugh, Harold L., Montreal, Que.

\*Irwin, John W., Westmount, Que.

# ADMITTED TO THE AD EUNDEM DEGREE OF BACHELOR OF SCIENCE.

Ferris, Charles E., Tennessee, U.S.A. Harrington, John Lyle, B.A., B.Sc., Kansas, U.S.A.

# ADMITTED TO THE DEGREE OF MASTER OF SCIENCE.

Boyle, Robert William, B.Sc., Carbonear, Nfld. Cole, G. P., St. Louis, U.S.A. Dutcher, Howard Ketchum, B.Sc., Charlottetown, P.E.I. Forbes, Harry Leo, B.Sc., Waverley, Halifax Co., N.S. Spencer, Arthur Gordon, B.Sc., Montreal.

<sup>\*</sup>To pass Supplemental Examinations. †Matriculation conditioned.

# STANDING IN THE SEVERAL SUBJECTS.

### ANALYTICAL CHEMISTRY.

Fourth Year.—Class I.—Livingston, Ritchie, Winter. Class II.—Mc-Meekin, Burnett, Wiekware, Howell. Class III.—Cole (L. II.), and Cowen and Young, equal; Cole (G. E.).

## ARCHITECTURAL DRAWING.

Second Year.—Class I.—Wood, Mayers, Ruttan.

First Year.—Class I.—Irwin, Webber, Featherstonhaugh. Class II.—

Harthan.

# ARCHITECTURE (HISTORY OF).

Fourth Year.—Class I.—Blackader, Anglin.
Second Year.—Class I.—Ruttan. Class II.—Wood. Class III.—Mayers.

# ASSAYING (FIRE).

Third Year.—Class I.—Brown, Lathe, Brennan, Strangways. Class II.—Drummond, Hayes; Drysdale and Maeaulay and Wark, equal; Dickson, Haughton; Patterson and Phillips, equal.

## BUILDING CONSTRUCTION.

Second Year.—Class I.—Ruttan. Class II.—Wood, Mayers.
BUILDING TRADES (ORNAMENT. DECORATION).

Second Year.—Class I.—Mayers, Wood, Ruttan.

# CHEMISTRY (ELECTRO).

Fourth Year.—Class I.—Christie. Class II.—Forbes; Barrington and Durland; Corigan and Hibbard; Ross (D.). Class III.—Beaubien, Piehe.

# CHEMISTRY (ELEMENTARY).

Second Year.—Class I.—Herbert, Baird, Whyte. Class II.—Guillet and Hattie; Whitton, Carmichael, Vipond; Dawson and Kerr, equal; Montague, Allan; Forbes and Pitts, equal; MeBeath, Fetterly, Bristol; Graham and Hodge and Mohan and Montgomery, equal; Parham and Pratt, equal; Davies and Irwin, equal; Davis and Dick, equal; Harris and Lighthall and Smith, equal; Bell and Dalton, equal; Shanks. Class III.—Turnbull, Briegel; Campbell and Raphael, equal; Mather and Murphy, equal; Nicolls; Brennan and Cameron and Letourneau, equal; Christie and Neily, equal; Lynch and Thorne, equal; Melhuish; Blackett and Heywood and Stitt, equal; Ballantyne; Beaudry and Ross (C. M.), equal; Goodchild and Scott and Scovil and Winslow and Wright, equal; Anderson and Spencer, equal; Cowan and Morrin and Morrison and Robertson, equal; McGuire and Richardson, equal; Drysdale and Lundy and Younger, equal; Zimmerman; Green and Strumbert, equal; Ahern; D'Aeth and Gosselin and Ross (D.), equal.

# CHEMISTRY (INDUSTRIAL).

Third Year.—Class I.—None. Class II.—Elliott. Class III.—Dickson and Seaborn, equal; Spafford.

CHEMISTRY OF IRON AND STEEL.

Third Year.—Class I.—Lathe. Class II.—Brown.

CHEMISTRY (PHYSICAL).

Fourth Year.—Class I.—Robertson. Class II.—None. Class III.—Davidson.

CHEMISTRY (PRACTICAL PHYSICAL).

Fourth Year.—Class I.—Robertson. Class II.—Davidson, Harvie (R.).

CHEMISTRY (PRACTICAL ORGANIC).

Fourth Year.—Class I.—Robertson.
Third Year.—Class I.—None. Class II.—Elliott and Spafford, equal.

CLASSIC DETAIL.

Second Year.—Class I.—Ruttan, Mayers, Wood.

DECORATION (E. T. C.).

Fourth Year.—Class I.—Blackader, Anglin.

## DESCRIPTIVE GEOMETRY.

Third Year.—(Architectural Course).—Class I.—None. Class II.—Shorey. Class III.—Robb.

Third Year.—(Civil Engineering Course).—Class I.—Lamb, Bell, Racey.

Class II.—Miller, Mathieson, Wilson, Hay. Class III.—Davis
and Westland, equal; McCallum; Brown (W. G. B.), and
Gamble, equal; Black and Harrington and Wheaton, equal;
Goldie, Howe, Otty, Macklem, McDonald (H. F.), Beaton;
Canfield and Pickard, equal; Barclay (M.D.), Baylis; Brown

(L. O.), and Ryan, equal.

First Year.—Class I.—Macdonald, McKinnon, Campbell, Dennis, Allen, Farnsworth, Watson, Price, Stewart (L.), Kennedy; Hague and Lindsay, equal; Dwight, Grove. Class II.—Galbraith. Stewart (R. B.), Fraser, Dickieson, Nairn; Robertson and Smith, equal; Coulin and Goode and McLean, equal; McNaughton and Meek and Yuill, equal; Poissant, Briggs, Stackhouse; Ford and Sailman, equal; Menzies, Read; Best and Mooney and Soper and Williamson, equal; Wilson, Paquet; Ash and Scott, equal; McDougall, Maltby, LaForest, Bronson, Bregent, Burbidge; Chrysler and Tanner, equal; Morrison, Landry; Graham and Maver, equal; Fay, McLochlin, Sutherland, Hilborn, Cate; Ker and Mackay, equal; Townshend, Dion, Lumsden; Boyd and O'Neill, equal; Archibald (H. D.), and Bambrick and Black and Cheesbrough and Descarries and Edwards and Farley and Gardiner and Harthan and Hudson and Irwin and Kemp and Ross and Webber and Wood, equal.

# DESIGN (ARCHITECTURAL).

Fourth Year .- Class I. - None. Class II. - Blackader, Anglin.

#### DESIGNING.

Fourth Year.—(Civil Engineering Course).—Class I.—Clawson; McCuaig and McLachlan, equal; Black. Class II.—Macnab and Pedley, equal; Anderson, McConkey, Newton; Brunner and Piers, equal; Slater, Hadley, Dawe, McIntosh. Class III.—Vansittart, Gordon. (Mechanical Engineering Course).—Class I.—Black, Kirkpatrick. Class II.—Miner, Jackson, Loudon, Brady, Taylor. Class III.—MacCarthy; Pinch and Ryan and Turley, equal; Gibbs, Presner. (Mining Engineering Course).—Class I.—Cole (G. E.), Cole (L. H.), Howell. Class II.—Livingston, Winter, Wickware, McMeckin, Ritchie. Class III.—Cowen, Young, Burnett.

Second Year .- Class I .- Mayers, Wood. Class II .- Ruttan.

# DETAILS OF PERIODS.

Fourth Year .- Class I .- None. Class II .- Anglin, Blackader.

# DETERMINATIVE MINERALOGY.

Third Year.—Class I.—Strangways. Class II.—Seaborn and Neily, equal; Phillips, Wark; Brown and Dickson, equal. Class III.—Macaulay, Drummond and Lathe, equal; Elliott and Haughton, equal; Patterson, Spafford.

## DRAUGHTSMANSHIP.

Fourth Year .- Class I .- None. Class II .- Blackader, Anglin.

## DYNAMICS OF MACHINES.

Fourth Year.—(Mechanical Engineering Course).—Class I.—Jackson, Loudon. Class II.—Kirkpatrick, Turley. Class III.—Black; Gibbs and Taylor, equal; Miner, Brady; Pinch and Presner, equal.

Third Year.—(Electrical and Mechanical Engineering Courses),—Class I.—Riddell, Wright, Griffin, Kenyon, Shearer, Hall (G. R.), Foster. Class II.—Killam, Woodyatt, McDonald (R. R.), Hargrave; Gray and Munn, equal; Hall (N. M.), Roger; McWilliam and Trimingham, equal; Williams; Brown and Little, equal. Class III.—Ross (D.), Scott; McCuaig and Whitcomb, equal; Slavin, Mulligan, Haskell; Barclay and Engel, equal; Maxwell and Renaud, equal.

# ELECTRICAL ENGINEERING (C. C. MACHINERY).

Third Year.—(Electrical Engineering Course.)—Class I.—Shearer.
Class II.—Kenyon, Wright, Scott, Griffin, Trimingham, Little,
Woodyatt, Class III.—Williams; Brown (S. B.), and Hall
(G. R.), and McCuaig, equal; McWilliam; Ross (D. G.), and
Hargrave, equal; Haskell; Macdonald (R. R.), and Mulligan,

equal; Macdonald (W.) and Richards, equal. (Mechanical Engineering Course). Class I.—None. Class II.—Gray, Killam, Foster, Munn. Class III.—Riddell; Maxwell and Whitcomb, equal; Hall (N. M.), Renaud.

# ELECTRICAL ENGINEERING (A. C. MACHINERY).

Fourth Year.—Class I.—Gray, McLeish. Class II.—Hibbard, Christie. Class III.—Forbes, Brennan, Harvie, Mudge; Barrington and Purdy, equal; Ross (D.), Durkee, Durland; Dougherty and Gurd, equal; Beaubien and Piche, equal.

## ELECTRICAL ENGINEERING DESIGN.

Fourth Year.—Class I.—Forbes and Gray and Harvie, equal; Brennan and Thomas, equal; Mudge. Class II.—Christie and Dougherty and Durland, equal; Hibbard, Corrigan, Barrington; Boyd and McLeish, equal. Class III.—Piche and Ross (D.), equal; Durkee and Gurd, equal; Beaubien and Purdy, equal.

## ELECTRIC LABORATORY.

Fourth Year.—Class I.—Gray and McLeish and Thomas, equal; Brennan and Harvie, equal; Forbes; Christie and Hibbard, equal. Class II.—Barrington; Durland and Mudge, equal; Boyd and Dougherty, equal; Beaubien and Corrigan, equal; Durkee and Piche, equal. Class III.—Purdy, Ross; Gurd and Higgins, equal.

# ELECTRICAL LIGHTING AND POWER DISTRIBUTION.

Fourth Year.—Class I.—Gray, Thomas. Class II.—McLeish, Brennan, Forbes, Christie. Class III.—Dougherty, Howe; Beaubien and Durkee, equal; Corrigan and Durland, equal; Barrington and Mudge, equal; Hibbard; Higgins and Purdy and Ross (D.), equal; Gurd.

## ELECTRICAL MEASUREMENTS. (THEORY).

Third Year.—Class I.—Kenyon, Woodyatt. Class II.—Griffin, Shearer, Brown (S. B.), and Engel, equal; Trimingham. Class III.—Hargrave, McCuaig, Little; 'Macdonald (R. R.), and Williams and Wright, equal.

## ELECTRIC TRACTION.

Fourth Year.—Class I.—Gray. Class II.—Forbes, McLeish, Brennan, Christie; Durland and Hibbard, equal. Class III.—Beaubien and Harvie and Mudge, equal; Barrington; Corrigan and Durkee and Purdy, equal; Ross (D.), Dougherty.

## ENGLISH COMPOSITION.

First Year.—(In alphabetical order).—Allen, Archibald (H. D.), Ash, Austin, Baillie, Baldwin, Bambrick, Bancroft, Best, Binks, Blanchard, Bowman, Boyd, Bregent, Briggs, Bronson, Butten-

shaw, Campbell, Cate, Cheesbrough, Chrysler, Cook, Coulin, Cummin, Delgado, Dennis, Dickieson, Dion, Dwight, Edwards, Ekers, Farnsworth, Fay, Fraser, Galbraith, Gall, Gardiner, Gladman, Goode, Graham, Grove, Hague, Harvey, Hilborn, Hudson, Kennedy, Ker, LaForest, Lindsay, Macdonald, Mackay, McKinnon, McLachlin (E.), McLean, Maltby, Marsh, Maver, Meek, Menzies, Mooney, Nairn, O'Neill, Poissant, Porter, Read, Ritchie, Robertson, Ross, Sailman, Sanderson, Scott, Singleton, Slingsby, Smith, Soper, Stackhouse, Stevenson (G.), Stewart (L.), Stewart (R. B.), Stroud, Sutherland, Tanner, Townsend, Venables, Vessot, Virtue, Watson, Williamson, Yuill.

# FREEHAND DRAWING.

Third Year.—(Architectural Course).—Class I.—None. Class II.—Robb and Shorey, equal.

Second Year.—(Architectural Course).—Class I.—Wood. Class II.—Mayers and Ruttan, equal.

First Year .- Class I .- Grove and Harthan and Lindsay, equal; Archibald (II. D.), and Buttenshaw, equal; Ash, Macdonald, Blanchard; Hilborn and Price, equal. Class II .- Dwight and Singleton, equal; Black and McLean, equal; Bowman; Boyd and Kennedy and Stackhouse, equal; Coulin and Farley and Farnsworth and McKinnon and McNaughton and Watson, equal; Edwards and Fraser and Mooney and Soper and Williamson, equal; Fay and Irwin and Leggett and Nairn and Stewart (L.), equal; Campbell and Ritchie and Ross, equal; Poissant and Robertson and Townsend, equal; Bregent and Fetherstonhaugh and Goode and Hague and Meek, equal. Class III .- Baillie and Ford and Hudson and Mackay and Sailman and Slingsby, equal: Allen and Best and LaForest and McLachlin and Miller and Sutherland, equal; Delgado and Ekers and Morison and Smith, equal; Briggs and Bronson and Dickieson and Maver and Raymond and Wood, equal; Baldwin and Bambrick and Cook and Galbraith and Gardiner and Lumsden and Maltby and Webber and Yuill, equal; Austin and Burbidge and Dennis and O'Neill and Porter and Rider and Winslow, equal; Chrysler and Gall and Ker, equal; Binks and Scott and Stroud, equal; Dion and Graham and Tanner and Vessot, equal; Archibald (K.), and Cate and Landry and Marsh and Menzies and Read and Stevenson and Stewart (R. B.), equal.

# GEODESY.

Fourth Year.—Class I.—None. Class II.—Macnab, Brunner, McLachlan, Clawson, Piers. Class III.—Pedley, Gordon, McIntosh, Black and McCuaig, equal; Vansittart, Hadley; Anderson and Slater, equal; Dawe and McConkey, equal; Newton.

## GEODETIC FIELDWORK.

Fourth Year.—Class I.—McCuaig, McLachlan, Clawson, Macnab, Gordon, Piers. Class II.—Brunner, Vansittart. McIntosh; Black and Slater; McConkey; Anderson and Hadley, equal; Newton. Class III.—Pedley, Dawe.

## GEOLOGY.

Third Year.—Class I.—Bell. Class II.—Lamb, Strangways, Gamble, Racey, Westland, Elliott, Davis, Patterson, Mathieson, Beaton. Class III.—Miller; Harrington and McCallum, equal; Brodie and Hay, equal; Brown (L. O.) and Otty, equal; Black and Howe, equal; Brown (W. G.), Morrow; Haughton and Wilson, equal; Macklem, Goldie, Moyse; Drummond and Macaulay and McDonald (H. F.), equal; Pickard, Canfield; Barclay (M. D.) and Baylis and Spafford and Wark, equal.

# GEOLOGY AND ORE DEPOSITS.

Fourth Year.—Class I.—Wickware. Class II.—Cole (G. E.) and Winter, equal; Livingston and Ritchie, equal; McMeekin, Young, Howell. Class III.—Cowen, Cole (L. H.), Burnett.

## GRAPHICAL STATICS.

Third Year.—Class I.—Bell, Lamb; Riddell and Whitcomb, equal; Ross, McCallum, Kenyon; Gray and Racey, equal. Class II.—Hargrave, Williams; Brown (W. G. B.) and Griffin, equal; Shearer and Wright, equal; Black and Engel, equal; Callaghan, Kıllam; Cnurchill and Gamble and Little, equal; Hay and Munn, equal; Brown (L. O.) and Davis and Mathieson, equal; Foster and Goldie and Hall and Macklem and McWilliam, equal; Harrington and Haskell and Trimingham, equal; Baylis and Mackay, equal; Norton and Scott and Wilson, equal; Howe and Maxwell and Wark and Wheaton, equal; Roger. Class III.—Hepburn, Miller, Barclay (M. D.); Beaton and Daly and Gill and Haughton, equal; Brown (S. B.) and Otty, equal; Pickard and Westland and Wodyatt, equal; McCuaig and Macdonald (W. M. B.) and Mulligan and Richards, equal; Barclay (C. H.) and Patterson, equal; Moyse, Drummond, Macaulay; Canfield and Macdonald (R. R.) and Paulsen, equal; Cattanach.

### HYDRAULICS.

Fourth Year.—(Full Course).—Class I.—Gray, McLeish. Class II.—Gurd, Macnab; Black (D. M. E.), and Jackson, equal; McLachlan and Purdy, equal; Anderson and Brunner and McCuaig, equal; Piers, Durkee; Brennau and Clawson, equal; Kirkpatrick and Mudge and Pedley, equal; Loudon, Harvie. Class III.—Black (T. T.), and Turley, equal; McConkey and Presner, equal; Gordon and Hadley and Norton and Ryan, equal; McIntosh and Newton and Winter, equal; Pinch and Taylor and Vansittart, equal; Cole (L. H.); Boyd and Dawe and Gibbs, equal; Ritchie and Slater, equal; Cowen, Cole (G. E.) (Partial Course.)—Class I.—None. Class II.—Christie, Forbes; Barrington and Burnett, equal; Wickware; Durland and Hibbard, equal. Class III.—Howell; Corrigan and Ross, equal; McMeekin; Beaubien and Brady and Livingston, equal; Young.

## LABORATORIES.

Fourth Year .- (Chemical Laboratory) .- Class I .- Davidson and Seaborn, equal. Class II .- Harvie. (Mining Engineering) .- Class I .- Livingston, Ritchie, Wickware. Class II .- McMeekin, Cole (G. E.). Howell and Winter, equal. Class III.—Cole (L. H.),

and Cowen and Young, equal; Burnett.

Second Year .- (Chemistry Course) .- Class I .- Dawson. Class II .-Smith. Civil, Electrical, and Mechanical Engineering Courses) .- Class I .- Baird, Price, Christie; Herbert and Parham, equal; Dick. Class II .- Bregel and Fetterly, equal; Hattie and Hodge and Cameron, equal; Davies and Forbes and Letourneau and McBeath and Vipond, equal; Davis and Richardson and Taylor and Zimmerman, equal; Nicolls and Ross (D.), equal; Ayre and Dalton and Mohan and Montgomery and Saunders, equal; Bristol and Melhuish and Stephens, equal; Ballantyne and Beaudry and Campbell and Whitton and Whyte, equal; Mather and Pitt and Ross (C. M.), equal. Class III.—Blackett and Carmichael and Cowan and Drysdale and Greene and Heywood and Scott and Thorne, equal; Graham (J. R.); Brennan and Dickson, equal; Anderson and Guillet and McGuire and Morrison and Shanks and Strumbert and Turnbull, equal; Kerr and Raphael, equal; Gomes and Gosselin and Morrin and Spencer, equal; D'Aeth and Robertson and Winslow, equal; Babington and Lighthall, equal; Irwin and Lundy, equal; Montague and Murphy and Pratt, equal.

Year.—(Electrical Engineering).—Class I.—Little and Wright, equal; Griffin and Kenyon, equal. Class II.—Hargave and Shearer, equal; Hall (N. M.), and Scott, equal; Trimingham, Williams and Woodyatt, equal; Brown (S. P.), and Haskell, equal. Class III.—Mulligan and Richards, equal; Third McCuaig and McDonald (R. R.), equal; Ross (D. G.), and Engel, equal; McDonald (W.), and McWilliams, equal; Slavin. (Mechanical Course) .- Class I .- Riddell and Whitcomb, equal. Class II.—Gray and Hepburn, equal; Munn, Maxwell. Class III.—Barelay (C. H.) and Foster and Killam, equal; Hall

(N. M.), Renaud.

Fourth Year .- (Geodetic Laboratory) .- Class I .- McConkey and Mc-Cuaig, equal. Class II .- McLachlan, Piers; Black and Pedley and Slater, equal; Clawson and Hadley and McIntosh and Macnab; equal; Newton, Brunner. Class III .- Dawe; Anderson

and Gordon, equal: Vansittart.

Fourth Year .- (Mechanical Engineering Laboratory) .- Class I .-Class II .- Black, Kirkpatrick, Turley, Loudon. Class III .- Brady and MacCarthy, equal; Pinch, Gibbs, Presner, Ryan, Taylor.

Third Year .- (Mechanical Engineering Laboratory) .- Class I .- Gray and Munn and Riddell and Whitcomb, equal; Fester and Hall (N. M.) and Hepburn and Killam and Maxwell and Norten,

equal. Class II .- Renaud, Barclay (C. H.).

Third Year .- (Mining Laboratory) .- Class I .- Cole (L. H.), Howell. Class II .- Cole (G. E.), Livingston, Wickware, Winter; Burnett and Ritchie, equal; Cowen and McMeekin, equal. Class III .- Young.

Second Year.—(Physical Laboratory).—Class I.—Finlayson and Herbert and Hodge and Snook, equal; Campbell and Christie and Ross (D.), equal; Briegel and Bristol and Davis, equal; Blackett and Cameron and DeLancy and Dick and Guillet and Parham, equal; Hattie and Kerr and Lighthall and McBeath and Stitt, equal; Baird and Ballantyne and Brodie and Dalton and Dawson and Fetterly and Green and Montague and Scott, equal; Brennan and Hendrie and Mohan and Vipond, equal; Heywood and Irwin and Pitts and Richardson and Whyte, equal: Carmichael and Graham (J. R.), and Pease and Robertson and Turnbull and Younger, equal. Class II .- Davies and Dickson and McGuire and Murphy and Nicholls, equal; Ayre, and D'Aeth and Goodchild and Letourneau and Manny and Mather and Pratt and Saunders and Whitton and Winslow, equal; Ahern and Drysdale and Forbes and Harris and Lundy and Raphael and Shanks and Spencer and Stephen and Meldrum and Virtue and Zimmerman, equal; Morrin; Cowan and Graham (D. F.), and Ross (C. M.), and Strumbert and Thorne, equal; Anderson and Moore, equal; Melhuish and Ross (C. C.), equal; Smith, Wood. Class III.—Gilmour, Babington. Year.—(Physical Laboratory).—Class I.—Farnsworth and Macdonald, equal; Dwight and Robertson and Soper, equal; Ekers Firstand Ash and Mooney and O'Neill and Poissant, equal; Fraser and Ford and Scott and Watson, equal; Allan and Briggs and Bronson and Campbell and Paquet, equal; Archibald (H. D.), and Austin and Buttenshaw and Hilborn and Raymond and Sailman and Stewart (L), equal; Farley and Hague and Hudson and Kennedy and Lindsay and McDougall and Meek and Nairn and Read and Stewart (R. B.), and Wood, equal; Dennis and Dickson and Graham and Grove and McKinnon and McLean and Maltby and Morrison and Stevenson and Tanner, equal; Baillie and Cheesbrough and Cook and Coulin and Dion and Fay and Galbraith and Gall and Gardiner and LaForest and Landry and Mackay and McLachlin and Mc-Naughton and Maver and Ritchie and Townsend and Williamson, equal. Class II.—Baldwin and Bambrick and Best and Boyd and Chrysler and Marsh and Porter and Price and Rider and Smith, equal; Binks and Davis and Goode and Menzies and Slingsby and Stackhouse and Stroud and Wilson and Winslow and Yuill, equal; Burbidge and Singleton and Sutherland and Vesset, equal; Blanchard and Edwards and Ker and Saunderson, equal; Bancroft and Bowman and Bregent and Cate and Delgado, equal; Ross and Black, equal. Class III.—Leggett.

# LETTERING.

First Year.—Class I.—Lindsay, Hudson; Dwight and Farnsworth and Macdonald, equal; Ash and Buttenshaw and Grove and Wilson, equal; Meck; Campbell and Coulin and Price, equal; Hague and Wood, equal; Best and Chrysler and Galbraith and Mooney and Nairn and Rider, equal. Class II.—Baillie and Farley and Fay and Kennedy and Robertson, equal; Delgado and Stewart (L.), equal; Briggs and Dennis and Goode and Townsend, equal;

Allen and Ford and MeNaughton, equal; Binks and Menzies und Tanner, equal; Archibald (H. D.), and Boyd and Leggett and Stackhouse, equal; O'Neill and Poissant and Williamson, equal; Burbidge and Black and Ekers and Fraser and Singleton, equal; Bronson and Gardiner and Hilborn and McKinnon and McLean and Smith and Watson, equal. Class III.—Maltby; Dickieson and Ross and Scott and Soper, equal; Cook and Morison and Yuill, equal; Austin and Bowman and Cate and McLachlin and Sailman and Stroud and Sutherland, equal; Archibald (K) and Baldwin and Ker, equal; Bregent and Porter, equal; Dion and Landry, equal; Mackay and Raymond and Winslow, equal; Maver and Vessot, equal; Bambrick and Edwards and Head and LaForest and Slingsby and Stewart (R. B.), equal.

## MACHINE DESIGN.

Fourth Year.—(Electrical Engineering Course).—Class 1.—Gray.
Class II.—Brennan. Class III.—Hibbard and McLeish, equal;
Durkee, Thomas; Barrington and Piché, equal; Durland and
Harvie, equal; Boyd and Christie and Corrigan and Forbes and
Gurd and Mudge and Purdy, equal; Beaubien and Higgins and
Ross, equal. (Mechanical Engineering Course).—Class I.—Nonc.
Class II.—Loudon, Presner, Jaekson. Class III.—Black, Miner,
Kirkpatrick, MacCarthy, Gibbs; Pinch and Ryan and Taylor
and Turley, equal.

Third Year.—Class I.—Killam, Woodyatt, Wright. Class II.—Munn, Shearer, Gray, Griffin, Brown, McWilliam; Kenyon and Whitcomb, equal; Hargrave. Class III.—Trimingham, Little, Riddell; Foster and McCuaig, equal; Williams, Engel, Hall (G. R.),

Haskell, Hall (N.), Maedonald (W. M. B.).

## MACHINE SHOP.

Second Year.—Class I.—Diek, Drysdale, Kerr: Brennan and Parham, equal. Class II.—Pratt; Carmichael and Cowan and McCallum and Melhuish and Whitton, equal; D'Aeth and Davis (F. M.), and Hattie and Vipond, equal; Briegel and Christie and Spencer and Turnbull, equal; Heywood; Baird and Hendrie, equal; Fetterly. Class III.—Crocker.

# MAPPING.

Third Year.—(Civil Engineering Course).—Class I.—Bell, Lamb. Class II.—Gamble; Hay and Racey, equal; Miller; Brown (W. G. B.), and Harrington and McCallum, equal; Beaton and Brown (L. O.), equal; Pickard; Davis and Ottv and Westland, equal; McDonald (H. F.), and Moyse, equal; Wheaton; Goldie and Howe and Macklem, equal; Baylis; Canfield, Wilson, Black. Class III.—Daly, Mathieson; Barclay (M. D.), and Ryan, equal; Morrow. (Mining Engineering Course).—Class I.—None, Class II.—Macaulay; Haughton and Patterson, equal; Wark. Class III.—Drummond, Churchill.

Second Year.—Class I.—Parham; McGuire and Stitt, equal. Class II.—Hattie and Pitts, equal; Ruttan; Davies and Green and Guillet and Mclhuish and Pease, equal; Beaudry and Dickson

and Graham (J. R.), and Vipond, equal; Baird and Drysdale and Goodchild and Manny, equal; Cameron and Crocker and D'Aeth and Irwin and Seely and Snook and Thorne and Wood (A. C.), equal; Beckwith and Campbell and Dick and Herbert and Heywood and Murphy and Robertson and Shanks and Spencer and Taylor and Whitton and Younger, equal; Ahern and Allen and Ballantyne and Blackett and Bristol and Hodge and Kerr and Lundy and McBeath and Richardson and Robb and Whyte, equal; Anderson and Brennan and Briegel and Christie and Dalton and Davis and Lighthall and Perry and Pratt and Raphael and Ross (D.), and Turnbull and Winslow, equal. Class III.—Chambers and Fetterly and Moore and Shorey and Stephen and Virtue and Wood (J. R.), equal; Ayre and Finlayson and Forbes and Gilmour and Gesselin and Kemp and Letourneau and Mohan and Ross (C. C.), and Scott and Scovil, equal; Carmichael and DeLancy and Lumsden and Nicolls, equal; Cowan and Descarries and Gomes and Montague and Zimmerman, equal; Morrin and Morrison, equal; Graham D. F.).

### MATERIALS OF CONSTRUCTION.

Second Year.—Class I.—Baird, Hodge, Brennan; Finlayson and Hattie, equal; Guillet; Parham and Vipond and Whitton, equal; Campbell and DeLancy and Whyte, equal; Bristol; Herbert and Mohan, equal; Melhuish and Murphy and Perry and Pitts, equal; Fetterly and Kerr, equal; Cameron and Turnbull, equal. Class II.—Irwin and Stitt, equal; Allan and Christie and Snook, equal; Beaudry and Davis and Lighthall, equal: Venables; Graham (J. R.); Dick and Kemp, equal; Thorne and Winslow, equal; Ahern, Goodchild; Forbes and Letourneau and Ross (C. M.), equal; Beckwith and Scott and Shanks, equal; Blackett and Green, equal; Lundy and Ross (D.), equal; McBeath and Spencer, equal; Harris and Richardson, equal; Davies; Crocker and Heywood and McGuire and Morrison and Pratt, equal; Gilmour and Younger, equal; Bell and Carmichael and Ballantyne and Saunders, equal. Class III.—Briegel and Gosselin and Pease and Scovil, equal; Whitcher, Graham (D. F.), Raphael; Cummins and Dalton, equal; Anderson; Cowan and Montague and Morrin and Seely, equal; D'Aeth, Nicolls, Downey; Mather and Millen and Robertson, equal; Dickson and Montgomery and Taylor, equal; Drysdale and Manny, equal; Ross (C. C.), Strumbert.

## MATHEMATICS.

Third Year.—(Calculus).—Class I.—Bell; Little and Wark, equal; Killam and Lamb, equal; Kenyon; Davis and Munn, equal; Miller and Racey, equal. Class II.—Wright; Howe and Woodyatt, equal; Gray and Riddell, equal; Hall (G. R.); McWilliam and Shearer, equal; Black and Trimingham, equal; Griffin and Hargrave, equal; Daly and Gamble. equal; Foster, Macaulay, Macdonald (R. R.). Class III.—McCallum and McCuaig, equal; Wheaton and Whitcomb, equal; Callaghan; Macklem and Westland, equal; Brown (W. G. B.), and Hepburn, equal; McDonald (H. F.), Engel; Barclay (C. H.), and Corrigan and Ross, equal; Mathieson, Mackay (R. M.); Williams; Macdonald (W. M. B.),

and Maxwell, equal; Roger; Drummond and Renaud, equal; Beaton; Cattanach and Moyse and Scott, equal; Hall (N. M.),

and Hay and Otty, equal.

Third Year Mechanics.—Class I.—Kenyon and Killam and Lamb, equal; Mathieson; Gray and Wright, equal; Bell and Shearer, equal; Griffin, Black (H. J.). Class II.—Davis and Riddell, equal; Foster and Hargrave and Woodyatt, equal; Miller; Gamble and McWilliam and Wilson, equal; Macaulay; Engel and Haskell and Macklem and Wheaton, equal. Class III.—McCuaig, Ross; Brown (S. B.), and Brown (W. G. B), and Hall (G. R.), and Racey, equal; Beaton and Munn, equal; Little; Brodie and Hay, equal; Canfield and Hall (N. M.), and Moyse and Williams, equal; Barclay (M. D.), and Brown (L. O.), and McCallum and McDonald (H. F.), and Macdonald (W. M. B.), and Maxwell and Thirmporton and Wark, equal

well and Trimingham and Wark, equal.

Second Year .- (Analytical Geometry) .- Class I .- Herbert, Parham, Guillet; Carmichael and Finlayson, equal; Davies (H. C.).

Class II.—Snook, Blackett; Bristol and Harris, equal; Baird,

Perry; Moore and Whyte, equal; Bell; Allan and Turnbull,

equal; Hattie and Vipond and Whitton, equal; Heywood and Murphy, equal. Class III .- Forbes, Campbell, Lighthall, Davis (F. M.), Dick, McBeath, Ballantyne, Raphael; Hodge and Ross (C. M.), equal; Christie and Filer and Graham (J. R.), and Irwin and Morrin and Winslow, equal; Dalton and McGuire, equal; Letourneau; Kerr and Mohan and Pratt, equal; Cameron and Cowan, equal; D'Aeth; Anderson and Goodchild and Melhuish and Montgomery and Nicolls and Pitts and Saunders, equal. (Calculus).—Class I.—Guillet, Finlayson, Lighthal, Snook; Allan and Davies, equal; Herbert and Whyte, equal. Class II.—
McBeath; Parham and Vipond, equal; Harris, Perry, Davis,
Cameron, Turnbull, Carmichael; Bristol and Whitton, equal;
Campbell, Murphy, Mohan, Hattie. Class III.—Moore and Kerr, equal; Pratt; Heywood and Montague, equal; Baird and Graham (J. R.), equal; Dalton and Pitts, equal; DeLancy, Raphael; Morrin and Stitt, equal; Dawson and McGuire, equal; Blackett, Archibald (E. M. B.), and Letourneau and Shanks, equal; Ahern and Forbes and Smith (R. R.), equal; Ballantyne and Ross (D.), and Spencer, equal; Mather and Montgomery and Nichols and Ross (C. M.), equal.

(Mechanics).—Class I.—Lighthall, Hattie; Cameron and Harris, equal; Herbert. Class II.—MeBeath. Baird and Richardson, equal; Guillet and Mather and Perry, equal; Graham (J. R.), and Vipond, equal; Finlayson; Blackett and Snook, equal; Dalton. Parham; Davies and Kerr and Moore and Pitts, equal. Class III.—Mackay (G. W.), Saunders; Montague and Whitton, equal; Murphy and Winslow, equal; Campbell and DeLancev and Ross (C. M.), and Turnbull, equal; Dawson; Christie and Stitt, equal; Bristol and D'Aeth and Hodge, equal; Mohan and Pease and Younger, equal; Irwin and Smith and Whyte, equal; Carmichael; Allan and Goodchild and Montgomery, equal; Dick; Davis and Ross (D.), and Zimmerman, equal; Archibald (E. M. B.), and

Brennan and Morrin and Raphael and Scovil, equal.

First Year.—(Algebra).—Class I.—Dwight, Campbell, Sailman, Dennis, Farnsworth, Stewart (R. B.), Kennedy. Class II.—Ford, Macdonald, Stewart (L); Coulin and Dickieson, equal; Watson, Smith; Gall raith and Meek and Eobertson, equal;

Soper; Allen and Briggs, equal; Grove and McLean and Williamson, equal. Class III.—Mckinnon and Nairn, equal; Landry and O'Neill, equal; Best and Hague and Yuill, equal; Bambrick; Bregent and Descarries and McNaughton, equal; Lindsay; Mooney and Poissant, equal; Winslow, Slingsby, Bronson; Fraser and Menzies, equal; Fay; Archibald (K.), and Graham, equal; Stackhouse; Ker and LaForest and Maltby and Ross, equal. (Dynamics).—Dwight and Sailman, equal; Dennis and Stewart (R. B.), and Watson, equal; Macdonald, Coulin, Grove, Campbell. Class II.—Hague, Kennedy; Mc-Naughton and Mooney, equal; McLean, Smith, McKinnon, Archibald (K.); Briggs and Morison, equal; Maver, Dickieson, Stewart (L.); LaForest and Winslow, equal. Class III.— Lindsay, O'Neill; Farnsworth and meen, equal; Slingsby and Soper, equal; Allen and Sutherland, equal; Nairn and Robertson, equal; Ford and McDougall, equal; Yuill; Bambrick and Dion and Williamson, equal; Cate and Cheesbrough, equal; Poissant; Fraser and Maltby, equal; Landry and Stackhouse and Wilson, equal; Ker and Mackay, equal; Archibald (H. D.) and Best and Galbraith and Menzies and Paquet, equal; Baldwin and Cook and Edwards and Fetterly and Goode and Ritchie, equal. (Geometry).—Class I.—Macdonald; Dennis and Dwight, equal; Stewart (R. B.); Campbell and Dickieson and Sailman, equal; Coulin and McKinnon, equal; Galbraith and Hague and Kennedy, equal; Yuill, Smith, Farns-Class II.—Landry and Watson, equal; Nairn, Stewart (L.); Allen and Best and Williamson, equal; Fraser and Lindsay and Menzies and Poissant, equal; O'Neill and Robertson, equal; Ford, Briggs. Class III.—Mooney; La-Forest and Soper, equal; McLean; Maltby and Morison, equal; Cummin and Winslow, equal; Bronson and McDougall, equal; Cheesbrough and Sutherland, equal; Cate and Lomer, equal; Archibald (H. D.) and Vessot, equal; Bambrick and Grove and McNaughton and Meek and Stackhouse, equal; Slingsby; Binks and Goode and Virtue, equal; Baillie and Blanchard and Buttenshaw and Cook and Descarries and Fay and Gall and Graham and Ritchie, equal. (Trigonometry).—Class I.—Camp-Farnsworth, Sailman, Dwight, Kennedy, Williamson; Allen and Dennis and Smith, equal. Class II .- Ford and Watson, equal; McKinnon, Landry, Stewart (R. B.); Macdonald and McNaughton, equal; Briggs; Coulin and Galbraith, equal; Dickieson; Lindsay and McLean, equal; Menzies and Morison and Stewart (L.), equal; O'Neill. Class III. Nairn, Hague, Graham, Sutherland; Bambrick and Robertson, equal; Mooney and Poissant and Soper, equal; Bancroft and Gall, equal; LaForest, Ker; Archibald (K.) and Cheesbrough and Meek, equal; Archibald (H. D.) and Bronson and Slingsby and Tanner and Wilson, equal; Descarries and Black, equal; Best and Fraser and Yuill, equal; Cook and Stackhouse, equal; Grove, Maltby, Townsend; Farley and Maver and Carter, equal.

# MECHANICAL DRAWING (MECH. ENG. COURSE).

Third Year.—Class I.—Munn, Killam. Class II.—Whiteomb; Hall (N. M.) and Riddell, equal; Foster, Renaud. Class III.—Maxwell.

MECHANICAL DRAWING (ELECT. AND MINING ENG. COURSES).

Third Year.—Class I.—None. Class II.—Brown (W. G. B.); Latho and Macdonald (R. R.) equal; Brown (S. B.); Drummond and Williams, equal; Dickson, Shearer; Griffin and Hall (G. R.), and Macaulay and Patterson and Wark, equal; Engel and Hargrave and Scott and Woodyatt, equal; Kenyon and MacKay and Mulligan and Roger, equal; Little and Wright, equal; Cattanach and Haskell and Houghton and Macdonald (W.M.B.), and Richards, equal; McCuaig and McWilliam, equal; Paulsen

and Ross' (D. G.), and Trimingham, equal.

Second Year.—Class I.—Herbert, Dalton, Seely; Dick and Richardson and Venables, equal. Class II.—Ballantyne and Dickson and Lighthall and Mather and Murphy and Snook and Taylor and Turnbull and Vipond, equal; Beaudry and Brennan and Briegel and Parham and Perry and Pitts, equal; Bristol and Davies and Guillet and Mohan and Montague and Whyte, equal; Cameron and Christie and Croeker and Graham (J. R.) and Graham (D. F.) and Heywood and Irwin and McBeath and Montgomery and Spencer and Whitton, equal; Blackett and Forbes and Green and Lundy and Morrin and Pease and Raphael and Robertson and Lomer and McDougall and Zimmerman, equal; Campbell and Gilmonr and Kemp and Manny and Moore and Ross (C. C.) and Thorne, equal; Hodge and Letourneau and Scott and Winslow, equal; D'Aeth and Harris and Hattie and Nicolls and Pratt and Shanks, equal; Cowan and Finlayson and McGuire and Ross (D.) and Stitt, equal; Ahern and Bell and Davis and Melhuish and Cummins and Stephen and Younger, equal. Class III .- Chambers and Fetterley and Whiteher, equal; Anderson and Carmichael and Drysdale and Kerr, equal; Beckwith and DeLaney, equal; Ross (C. M.) and Saunders, equal; Goodehild and Millen, equal; Filer; Baird and Gomes, equal; Gosselin.

# MECHANICAL ENGINEERING.

Fourth Year.—Class I.—Gray, Burnett. Class II.—McLeish, Hibbard, Gurd, Durkee, Forbes, Pedley; Howell and McLachlan and Purdy, equal; Brennan and McCuaig, equal. Class III.—Brunner and Corrigan and Thomas, equal; Anderson and Cowen and Durland and Harvie (J.), and Winter, equal; Clawson and Macnab, equal; Hadley and Mudge, equal; Gordon and McConkey and Piché, equal; Christie; Barrington and Piers and Ross (D.), equal; Wickware, Livingston; Black (T. T.), and Cole (G. E.), and Cole (L. H.), and Dawe and Dibblee and Higgins and McIntosh and McMeckin and Newton and Ritchie and Vansittart and Young, equal.

# MECHANICS OF MACHINES.

Second Year.—Class I.—Guillet, Turnbull, Lighthall. Class II.— McBeath; Parham and Whyte, equal; Cameron; Herbert and Snook, equal; Blackett, Finlayson, Mohan; Baird and Dick and Vipond, equal; Hattie and Shanks, equal; Montgomery and Perry, equal; Brennan and Bristol and D'Aeth and Seely, equal; Carmichael and Stitt, equal; Ahern and Harris, equal; Allan and Hodge, equal. Class III.—Pratt; Graham (J. R.), and Irwin and Mather and Morrin, equal; Dalton and Richardson, equal; DeLancey and Ross (D.), and Zimmerman, equal; Murphy, Ballantyne; Bell (V. H.), and Campbell and Forbes and Gilmour and Raphael, equal; Crocker and Davis (T. M.), equal; Morrison, Graham (D. F.), Winslow, Moore, Thorue, Whitton.

## METALLURGY ADVANCED.

Fourth Year .- Class I .- Brown (W. G.), and Lathe, equal. Class II .-None. Class III.—Dickson and Livingston, equal.

# METALLURGY OF COPPER, LEAD, ETC.

Fourth Year.—Class I.—Strangways; Brown (W. G.), and Burnett, equal. Class II .- Wickware; Cowen and Lathe and Livingston and Neily and Winter, equal; Cole (L. H.), McMeekin. Class III.—Howell; Cole (G. E.), and Ritchie, equal; Young.

### MINERALOGY.

Fourth Year .- Class I .- Ritchie and Wickware, equal; Livingston. Class II.—McMeekin, Howell, Winter. Class III.—Burnett and Cowen, equal; Cole (G. E.), Young, Cole (L. H.).

Third Year.—Class I.—Brown. Class II.—Elliott, Lathe, Strangways, Seaborn. Class III.—Patterson and Wark, equal; Neily, Drum-

mond; Dickson and Macaulay, equal; Haughton, Spafford.

# MINERALOGY (CHEM.).

Fourth Year .- Class I .- None. Class II .- Harvie (R.), Robertson, Davidson.

# MINERAL CHEMISTRY.

Fourth Year .- Class I.- None. Class II .- Seaborn, Davidson, Harvie (R.).MINING.

Fourth Year.—Class I.—Wickware. Class II.—Howell, Livingstone, Cole (L. H.), Burnett. Class III.—Cole (G. E.), Cowen, Ritchie, Winter, Young, McMeekin.

## MINING MACHINERY.

Fourth Year.—Class I.—Howell, Class II.—Burnett, Class III.— Cowen and Wickware, equal; Cole (L. H.), Livingstone; Mc-Meekin and Winter, equal; Young; Cole (G. E.), and Ritchie,

Third Year .- Class I .- Lathe; Brown (W. G.), and Wark, equal; Drummond. Class II.—Macaulay. Class III.—Dickson, Patter-

son, Haughton, Phillips.

#### MINING FIELD WORK.

Fourth Year.—Class I.—Cole (L. H), and Howell, equal. Class II.—Cole (G. E.). Class III.—McMeekin; Cowen and Wickware and Winter and Young, equal. Exempt.—Burnett, Livingstone. Ritchie.

# MUNICIPAL ENGINEERING.

- Fourth Year.—(Civils).—Class I.—McLachlan, Clawson, Piers. Class II.—McCuaig, Pedley; Brunner and Newton, equal; Gordon; Anderson and McIntosh, equal; McNab, Hadley; McConkey and Slater, equal. Class III.—Dawe, Vansittart, Black,
- Third Year.—Class I.—Bell, Mathieson, Westland. Class II.—Wilson; Brown (L. O.), and Gamble and Lamb, equal; Beaton and Mc-Callum, equal; Morrow; Brown, (W. G. B.), and Harrington, equal. Class III.—Miller and Wheaton. equal; Black and Racey, equal; Baylis and Brodie and Otty, equal; Canfield; Macklem and Moyse, equal; Daly and Goldie and McDonald (H. F.), equal; Davis and Howe and Pickard, equal.

#### ORGANIC CHEMISTRY.

Fourth Year .- Class I .- Robertson.

#### ORE DRESSING.

- Fourth Year.—Class I.—Wickware, Howell. Class II.—Winter. Cole (G. E.), Burnett, Cole (L. H.). Class III.—Ritchie, Young, Livingstone, Cowen, McMeekin.
- Third Year.—Class I.—Strangways, Brown (W. G.), Lathe. Class II.—Drummond, Macaulay. Class III.—Patterson, Phillips, Houghton, Wark, Dickson.

#### PETROGRAPHY.

Fourth Year.—Class I.—Wickware. Class II.—Howell; Livingston and Winter, equal; Cole (G. E.), Cole (L. H.). Class III.—Burnett, McMeekin, Ritchie, Cowen, Young.

#### PHYSICS.

First Year.—Class I.—Dwight; Campbell and Stewart (R. B.), equal; McDonald: Dennis and Stewart (L), equal; Kennedy, Price, Menzies, Robertson, Ford; Farnsworth and Lindsay, equal; McKinnon; Hague and Meek and Sailman and Smith, equal; Watson; Fraser and Soper, equal. Class II.—Allen and Coulin and Grove and McLean and O'Neill, equal; Galbraith and Read, equal; Cate and Stackhouse, equal; Cheesbrough and Porter, equal; McNaughton and Poissant, equal; Best and Nairn, equal; Bambrick and Dickieson and Yuill, equal; Sutherland; Dion and Rider, equal; Archibald (H. D.), and Hilborn, equal; Archibald (K.), and Buttenshaw, equal; Edwards and Marsh and Wilson, equal; Fay and Ker and Williamson, equal; Landry;

Goode and Graham, equal. Class III.—Burbidge; Bronson and Chrysler and Macdougall and Mackay and Morrison, equal; Cook and Ritchie, equal; Tanner; Briggs and Maltby, equal; Maver and Wood (H. W.), equal; LaForest and Sanderson and Townshend, equal; Blanchard and Winslow, equal; Boyd; Binks and Gall and Gardner and McLachlin, equal; Boyd; Binks and Stevenson, equal; Bancroft and Ekers and Ross, equal; Scott, Baillie, Delgado.

# PHYSICS (EXPERIMENTAL).

Turnbull; Finlayson and McBeath, equal; Blackett and Parham, equal; Class II.—Fetterly and Hattie and Vipond and Whyte, equal; Cameron, Lighthall, Bristol; Kerr and Mohan, equal; Ballantyne and Mather and Snook, equal; Campbell and Davis (F. M.), equal; Graham (J. R.); Carmichael and Crocker and Dawson and Dick and Scott, equal; Pitts, Whitton, Pratt, Raphael; Green and Stitt, equal. Class III.—Montague and Montgomery, equal; Murphy; Lynch and Ross (C. M.), equal; Bell and Davies (H. C.), equal; Morrin and Richardson and Spencer, equal; Dalton; Christie and Moore and Morrison, equal; Grahame (D. F.), and Heywood, equal; DeLancy; Beaudry and Ross (D.), and Winslow, equal; Anderson and Hendry and Shanks, equal; D'Aeth and Drysdale and Nicolls, equal; Lundy and Thorne, equal; Babington and Saunders, equal; Irwin and Younger, equal; Briegel; Scovil and Spafford, equal.

# PHYSIOGRAPHY AND PRACTICAL GEOLOGY.

Fourth Year.—Class I.—Wickware. Class II.—Howell; Burnett and Cole (G. E.), equal; Ritchie. Class III.—Cole (L. H.), Cowen; McMeekin and Winter, equal; Young.

#### PRACTICAL ASTRONOMY.

Third Year—Class I.—Bell and Lamb, equal; Goldie. Class II.—Macklem and Miller and Strangways, equal; Drummond; Gamble and Mathieson and Racey, equal; Davis and Macaulay and Wilson, equal; Beaton and Howe and Wheaton, equal; Black and Brown (W. G. B.) and Hay and Otty and Westland, equal; Daly and Harrington, equal. Class III.—Canfield and Wark, equal; Brodie; McCallum and Morrow, equal; Haughton and Patterson, equal.

### QUANTITATIVE ANALYSIS.

Third Year .- Class I .- McFee, Elliott, Spafford.

## RAILWAY ENGINEERING.

Fourth Year.—Class I.—McLachlan, Piers. Class II.—Clawson, Macnab, Black (T. T.), McIntosh, Newton, McCuaig. Class III.—Pedley, Brunner, Hadley, McConkey, Anderson, Vansittart, Gordon.

#### SPECIFICATIONS AND PRACTICE.

Fourth Year .- Class 1 .- None. Class II .- Blackader, Anglin.

### RAILWAY ENGINEERING.

Third Year .- (Civil) .- Class I. - Bell. Class II .- Harrington, Lamb. Class III .- Racey, Westland; Black and Brown (L. O.) equal; McCallum, Wilson; Davis and Miller, equal; Goldie and Howe, and Mathieson, equal; Hay; Canfield and McDonald, equal; Daly and Otty, equal; Beaton and Brown (W. G. B.) equal.

# ROADS AND RAILROADS (MINING).

Third Year .- Class I. - Strangways. Class II. - Macaulay. Class III. -Drummond.

#### SHOPWORK.

Fourth Year .- Class I .- Black (D. E.) and Presner, equal; Brady and Jackson and Kirkpatrick and London and Pinch; Ryan. Class

II .- Norton and Taylor and Turley, equal.

Third Year.—Class I.—Brown (S. B.), Riddell, Hepburn; Hargrave and Munn, equal; Hall (N. M.) and Whitcomb and Wright, equal. Class II.—Haskell and Roger and Shearer, equal; Foster and Killam and Maxwell, equal; Griffin and Little and Mulligan and Woodyatt, equal; Kenyon and Ross (D. G.) and Richards, equal; Macdonald (W. M. B.) and Norton and Trimingham, equal; Barclay (C. H.) and Engel and McCuaig and McDonald (II. F.) and Renaud, equal; Mackay (R. M.) and Mc William, equal. Class III.—Paulsen, Cattanach.

Second Year .- (Full Course) .- Class I .- Dick, Drysdale, Kerr; Brennan and Parham, equal. Class II.—Pratt; Carmichael and Cowen and Melhuish and McCallum and Whitton, equal; D'Aeth and Davis (F. M.) and Hattie and Vipond, equal; Briegel and Christie and Spencer and Turnbull, equal; Heywood; Baird and

Hendry, equal; Fetterly. Class III.—Crocker.

Second Year .- (Partial Course) .- Class I .- Davies (H. C.), and Perry and Richardson and Seely, equal; Campbell and Forbes and Hodge and Ross (D.), and Venables, equal; Babington and Ballantyne and Cameron and Dalton and DeLancey and Finlayson and Green and Guillet and Mohan and Montague and Robertson and Stephen and Winslow, equal. Class II.—Anderson and Bell and Blackett and Herbert and Kemp and Lighthall and Lundy and Manny and Moore and Ross (C. M.), and Scott and Thorne and Younger and Ayre and Lumsden and Brodie, equal: Gosselin and Irwin and Letourneau and Murphy and Pitts and Snock and Stitt and Taylor and Virtue and Whyte, equal; Graham (J. R.), and Harris and Saunders and Shanks and Wood and Descarries, equal; Ahern and Chambers and Gomes and Morrin and Nicolls and Raphael, equal; Downey and Goodchild and McBeath and McGuire and Lomer and Whitcher, equal. Class III .- Gilmour, Cummings.

First Year.—Class I.—Grove and Macdonald, equal; Price; Briggs and Head and Leggett, equal; Boyd and Farnsworth and Hudson and Lindsay and Stroud, equal. Class II.—Archibald (H. D.), and Fraser and Menzies and Mooney and Robertson and Stackhouse, equal; Ash and Cate and Hague and Mackay and Meek and O'Neill, equal; Best and Fay and Ford and Gardiner and Goode and Nairn and Porter and Sailman and Yuill, equal; Bowman and Buttenshaw and Campbell and Dwight and Galbraith and Hilborn and Maltby and Tanner and Vessot and Williamson, equal; Baldwin and Bambrick and Dennis and Dickieson and Edwards and Kennedy and Mc-Naughton and Poissant and Ritchie and Smith and Stewart (R. B.), and Watson, equal; Austin and Bancroft and Delgado and Dion and Landry and McKinnon and Maver and Scott and Singleton and Townsend, equal; Chrysler and Morrison and Read and Stevenson, equal; Binks and Bronson and Cook and Ekers and Gall and Ker and LaForest and McLachlin and Marsh and Miller and Raymond and Ross, equal; Blanchard and Bregent and Burbidge and Cheesbrough and Coulin and Farley and McLean and Sanderson and Soper and Stewart (L.), and Sutherland and Winslow, equal; Baillie and Slingsby, equal. Class III .- Davis, Graham, Archibald (K).

### STRUCTURAL ENGINEERING.

Third Year.—(Architectural).—Class III.—Robb, Shorey.
Third Year.—(Surveying—Arch.).—Class I.—None. Class II.—None.

Class III.—Shorey.

Third Year.—(Civil Engineering Course.)—Class I.—Bell, Lamb. Class II.—Wilson, Mathieson, Wheaton; Davis and Gamble and Miller and Westland, equal; Brown (W. G.), Black, Brodie; Canfield and Goldie and Macklem, equal; Harrington. Class III.—Racey, Howe, Otty, Beaton, Morrow, Daly; Baylis and Brown (L. O.), and Hay, equal; McCallum and McDonald, equal; Barclay (M. D.); Moyse and Pickard and Ryan, equal.

#### STRUCT. ENG. DET.

Fourth Year.-Class III.-Blackader, Anglin.

#### SUMMER ESSAYS.

Fourth Year.—Class I.—Black (T. T.); Turley and Wickware, equal; Cole (L. H.); Cole (G. E.), and Gray and Loudon, equal; Anderson and Brunner and Durland and Forbes and Macnab and McIntosh and Winter, equal. Class II.—Black (D.E.), and Brady and Burnett and McCuaig and Piers, equal; Christie; Brennan and Clawson and Cowen and Howell and Presner, equal; Durkee and Kirkpatrick and Jackson and McLachlan and Slater and Thomas, equal; Boyd and Davidson and Dawe and Hargrave and Harvie (R.), equal. Class III.—Harvie (J. H.), and Haskell and Pedley and McMeekin and Ross (D.). equal; Taylor; Mudge and Young, equal; McConkey and Purdy, equal; Hadley, Dibblee.

Third Year.—Class I.—Dickson and Lamb and Miller, equal; Gray and Pickard and Whitcomb, equal. Class II.—Bell; Gamble and Lathe and Roger and Scott and Williams, equal; Davis and

McDonald (W. M. B.), and Racey and Macaulay, equal; Hall (N. M.), and Maxwell and Otty and Wilson, equal; Wright, Black; Brown (S. B.), and Killam and Little and Morrow and Woodyatt, equal. Class III.—Mulligan, Haughton; Beaton and Trimingham, equal; Barclay (M. D.), and Shearer, equal; Daly and Wheaton, equal.

#### SURVEYING.

- Third Year.—Class I.—Bell, Lamb. Class II.—Harrington, Westland, Wheaton, Racey. Davis: Brown (W. G. B.), and Hay, equal; Gamble. Class III.—Goldie and Howe and McDonald (H. F.). equal; Brown (L. O.), and McCallum and Patterson and Pickard and Strangways, equal; Black and Churchill and Macaulay and Otty and Wilson, equal; Macklem and Wark, equal; Mathieson and Miller, equal; Beaton, Barclay (M. D.).
- Second Year.—Class I.—Herbert, Campbell. Class II.—Dick, Guillet, Baird; Hodge and Wood (A. C.), equal; Graham (J. R.), and Lighthall, equal; McBeath and Parham, equal; Dalton and Hattie and Snook and Whyte, equal; Anderson and Bristol and Cameron and Carmichael and Finlayson, equal; Delancy and Winslow, equal; Crocker; Drysdale and Fetterly and Ross (C. M.), equal; Richardson and Ruttan and Turnbull, equal; Montague; Brennan and Christie and Pitts, equal; Melhuish and Scott, equal; Irwin; Ballantyne and Perry and Spencer and Vipond, equal. Class III.—Raphael and Ross (D.), equal; Davies D'Aeth and Kerr, equal; Bell and Nicholls and Pease, equal; Davis and Heywood and Shanks, equal; Harris and Mohan and Thorne, equal; Kemp and Moore, equal; Seely and Lynch and Murphy, equal; Blackett and Mather and Robertson, equal; Stitt, Forbes; Briegel and Younger, equal; Beckwith and Whitton, equal: Morrin and Morrison and Scovil, equal; Saunders, McGuire; Dickson and Lundy, equal; Ahern and Cowan, equal.

#### SURVEYING FIELDWORK.

- Third Year.—Class I.—Gamble, Bell, Lamb, Pickard, Lynch. Class II.—Howe and Patterson, equal; Frith, Miller, Drinkwater, Racey, Westland, Wheaton, Otty; Beaton and Brown (L. O.), equal; Hay and McCallum and McDonald (H. F.), equal; Haughton and Morrow, equal; Davis. Wark, Black, Macaulay; Barclay (M. D.), and Daly and Phillips, equal. Class III.—Churchill; Brodie and Drummond and Wilson, equal; Dunning and Morrison and Ryan, equal; Moyse, Ellis.
- Second Year.—Class I.—Lathe, Hattie, Bristol, Graham (J. R.), De-Lancey, Baird, Forbes; Dick and Robertson and Whyte, equal; Herbert and Hodge and Kilbourne and Lundy and Thorne and Whitcher, equal; Dalton; Beaudry and Turnbull, equal; Drysdale and Murphy and Stitt, equal; Wood (A. C.). Class II.— Lighthall and Virtue, equal; Parham and Trenholme, equal; Dickson and Dawson and Perry and Scott, equal; Christie and Guillet and Shanks, equal; Crocker and Davis and Goodchild and Winslow, equal; D'Aeth and Saunders, equal; Manny and Mo-

han and Younger, equal; Ahern and Green and Letourneau and Richardson, equal; Ballantyne and Irwin and Pratt and Spencer, equal; Davies and Zimmerman, equal; Fetterley and Kerr, equal; Ayre; Brennan and Cameron and Melhuish and Raphael and Ruttan and Wood (J. R.), equal; McBeath and Nicolls, equal; Briegel; Lumsden and Vipond, equal; Robb and Ross (D.), and Shorey, equal; Cowan and Descarries and Downey and Pease, equal. Class III.—Anderson and Chambers and McGuire and Montague and Taylor, equal; Gosselin, Carmichael. Moore, Heywood, Whitton, Doran, Harris; Lomer and Meyerstein, equal; Morrin, Ross (C. M.), Campbell, Gomes, Graham (D. F.), Hendry.

### TESTING LABORATORY.

Third Year.—Class I.—Bell; Gray and Kenyon and Wright, equal; Griffin and Lamb and McWilliam and Racey and Shearer and Woodyatt, equal. Class II.—Brown (W. G.), and Brown (W. G. B.), and Hall (N. M.), and Killam and Lathe and Little and McCuaig and Munn and Whitcomb and Williams, equal; Beaton and Hargrave and Morrow and Ross and Scott, equal; Barclay (C. H.), and Brown (S. B.), and Harrington and Howe and McCallum and Matheison and Maxwell and Trimingham and Wark and Westland, equal. Class III.—Barclay (M. D.), and Black (H. J.), and Gamble and Haughton and Macaulay and Mackay and Otty and Riddell, equal; Canfield and Cattanach and Davis and Engel and Foster and Haskell and Hay and McDonald (H. F.), and McDonald (W. M. B.), and Miller and Mulligan and Roger and Wheaton, equal; Baylis and Drummond and McDonald (R. R.), and Goldie and Norton, equal; Dickson and Macklem and Moyse and Renaud and Brown (L. O.), equal; Brodie and Daly and Patterson and Pickard and Ryan and Wilson, equal; Richards, Slavin.

#### THEORY OF EVOLUTION.

Second Year.—Class I.—Mayers, Wood, Ruttan.

#### THEORY OF STRUCTURES.

Third Year.—Class I.—Bell and Gray, equal; Lamb and Woodyatt, equal; Shearer, McCuaig, Foster; Kenyon and Racey, equal. Class II.—Macaulay, Black; Wark and Wright, equal; Miller and Riddell, equal; Killam and Norton, equal; Munn, Hall (N. M.); Brown (W. G. B.), and Engel, equal; Griffin, Brown (S. B.), Drummond; Davis and Little and Maxwell, equal; Wilson, Macdonald (R. R.); Macdonald (H. F.), and McWilliam and Scott and Westland, equal. Class III.—Beaton and McCallum, equal; Mathieson; Gamble and Hall and Macklem, equal; Whitcomb, Wheaton; Canfield and Haskell, equal; Moyse, Ross; Hargrave and Harrington and Roger, equal; Barclay (M. D.), and Howe and Macdonald (W. M. B.), and Otty, equal.

#### THEORY OF STRUCTURES AND GRAPHICAL STATICS.

Fourth Year.—Class I.—Clawson. Class II.—McLachlan, Piers, Macnab, Pedley; Anderson and Brunner and McCuaig, equal

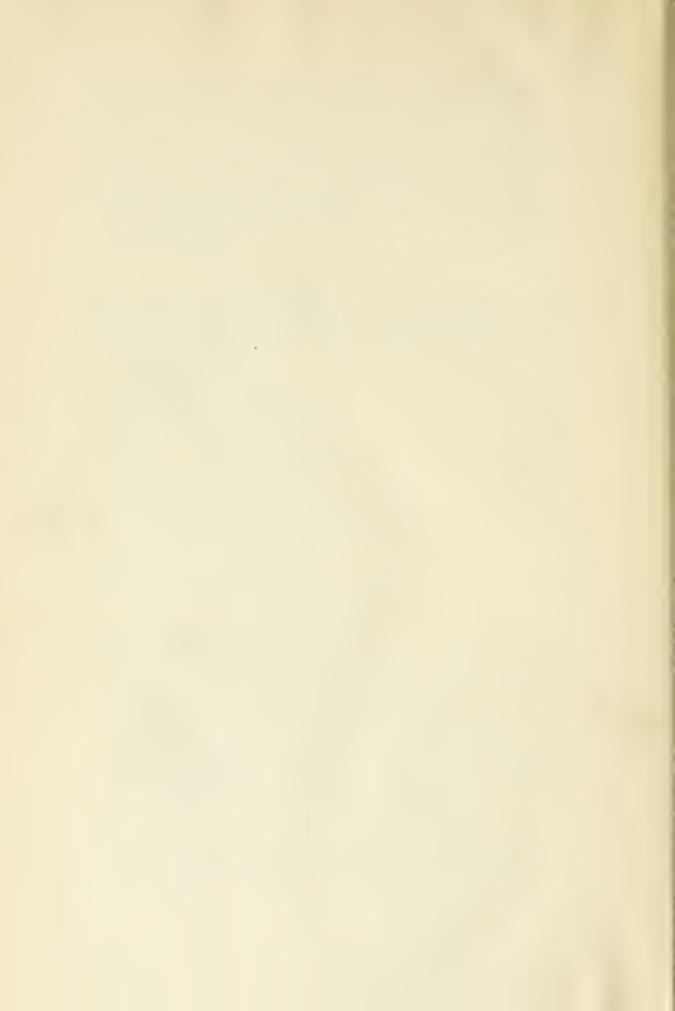
Class III.—Dawe and Hadley, equal; McConkey, McIntosh; Black (T. T.), and Vansittart, equal; Gordon and Newton and Slater, equal.

# THERMODYNAMICS (MECHANICAL).

- Fourth Year.—Class I.—Jackson. Class II.—MacCarthy; Black (D. E.), and Kirkpatrick and Turley, equal; Miner. Class III.—Brady, Presner, Ryan, Loudon, Pinch; Gibbs and Taylor, equal.
- Third Year.—Class I.—Whitcomb, Foster, Gray. Class II.—Killam, Riddell, Munn. Norton, Hall (N. M.). Class III.—Maxwell, Barclay (M. D.).

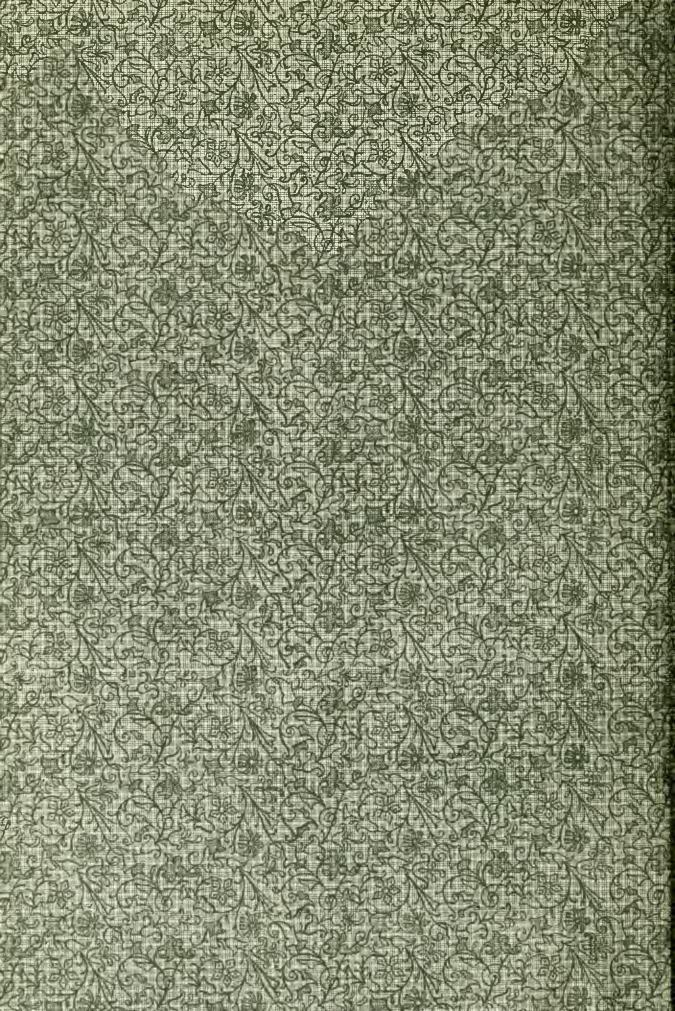
# THERMODYNAMICS (ELEC.)

Fourth Year.—Class 1.—Gray. Barrington, Gurd. Class 11.—Hibbard and McLeish, equal; Higgins, Harvie (J.), Purdy. Class 111.—Christie, Piché, Durkee, Brennan, Corrigan, Dougherty; Durland and Forbes, equal; Boyd, Mudge.









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